Molecular **PATHOLOGY** Workflow Solution

Catalog 2025

(INT)

FISH • ISH • IHC • miRNA

BioGenex

Accelerating the pace of precision Oncology

Dear Customer,

We are pleased to present the BioGenex Molecular Pathology Catalog. As a vertically integrated company, we develop, manufacture and market highly innovative and fully automated systems for tumor diagnosis, prognosis and therapy selection.

Xmatrx® systems redefine complete automation for the molecular pathology laboratory and standardize the protocol from baking through final cover-slipping in three simple steps - Load, Click and View. Compared to any other system on the market, Xmatrx® systems offer clean intense stain(s), automate more assay steps, and enable automation of technologies for the future molecular pathology laboratory.

- Xmatrx® ELITE integrates All-in-One staining of IHC, ISH, FISH, Mulit-plexing and beyond
- Xmatrx® Infinity is a high-performance staining platform for life sciences and translational research
- NanoVip™ 300 is a fully-automated, 30-slide benchtop compact system with micro-chamber® for FISH, ISH and IHC
- NanoVip™ is a fully-automated, 10-slide benchtop compact system with micro-chamber® for FISH, ISH and IHC

We also offer a series of i6000™ systems with very high throughput: 200 slides in an 8-hour shift.

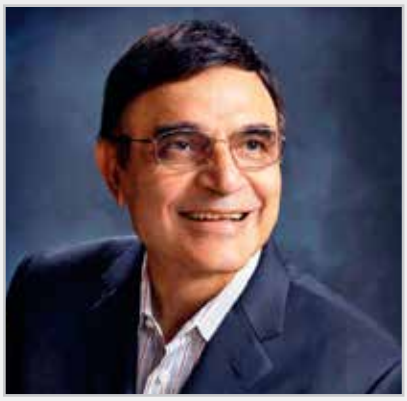
To maintain our tradition of offering superior solutions for the emerging needs of your laboratory, we offer a broad range of molecular pathology products for IHC, ISH,FISH, miRNA, multiplex staining of tissues including 600+ primary antibodies, molecular probes, detection systems, and ancillaries. These are offered for standardized, reliable and consistent results to support the needs of molecular pathology laboratories of today, tomorrow and beyond.

BioGenex is committed to the core values of innovation, reliability, productivity, quality, superior after-sales support and service for complete customer satisfaction.

I invite you to learn more about our exciting products and future development through this catalog and our new website at www.biogenex.com. Should you have any suggestions for improving our products and services, I encourage you to write me directly at k.kalra@biogenex.com.

Give us an opportunity and experience the difference.

Warm Regards,
Krishan Kalra, Ph.D.
CEO



"To Enable Pathologists and Clinicians for Precise Diagnosis and Improved life of Cancer Patient"

Dr. Krishan Kalra

- **Innovation**
- **Quality**
- **Service**
- **Reliability**
- **Productivity**

Table of Contents

For latest product offerings visit our website **www.biogenex.com** or contact our customer support: **customer.service@biogenex.com**

Overview

BioGenex celebrated its 43rd anniversary serving the anatomic pathology market. We take great pride in providing premier service and support while bringing new and technologically advanced products to the market.

BioGenex provides a "Total Solution" for slide-based cell and tissue analysis. Our products include a wide variety of antibodies, highly sensitive detection kits, automated systems, probes and ancillary products. Our automated systems streamline operations in molecular and cellular pathology laboratories, providing effective tools for the detection and diagnosis of tumor and other diseases. BioGenex continues to innovate as evidenced by the launch of the Xmatrx®, NanoVip™ Staining System which provides complete automation "From Microtome to Microscope".

We are committed to providing our customers and our distributors with flexible, innovative and cost-effective tools for clinical diagnostics, life science research and drug discovery.

Service

We value you and your business. We want our relationship to be one of total satisfaction. Our Technical Support Specialists provide fast troubleshooting advice and technical information and they are responsive to your individual needs. Just visit our website at www.biogenex.com, send an e-mail to customerservice@biogenex.com or call toll free at 1-(800)-421-4149 from 7:00 AM to 4:00 PM (PST), Monday through Friday, with your request.

Quality

BioGenex is committed to excellence by providing high-quality products. We offer a broad range of products which are manufactured using state-of-the-art equipment in controlled environments. They are stringently tested to ensure that they meet or exceed functional, dimensional, and environmental requirements and are compliant with federal regulations. Our automated systems are designed for high-throughput at a low cost of ownership. They provide consistent quality results with ease-of-use and maximum flexibility for clinical diagnostics, life science research, and drug discovery markets.

Reliability

BioGenex products give consistent, reproducible and reliable results. Our automated systems are highly reliable and dependable, giving our customer peace of mind.

Innovation

BioGenex has a rich history of innovation in the field of Immunohistochemistry (IHC), *In situ* Hybridization (ISH), and FISH. BioGenex has a strong intellectual portfolio, consisting of several US and foreign-issued patents, in the areas of

- DNA labeling and amplification
- Antigen retrieval and deparaffinization
- Automation of tissue and cell sample preparation
- Automated IHC, and staining of nucleic acids
- Nucleic acid retrieval for tissues

Productivity

BioGenex has automated cell and tissue analysis to accelerate clinical diagnostics and drug discovery development. We have developed the total walk-away, industrial scale automated systems to streamline and standardize an array of processes for cell and tissue testing in IHC, ISH/CISH, FISH, and image analysis applications. We offer a "Total Solution" automating every aspect of the histology slide preparation "From Microtome to Microscope". These technologies significantly increase laboratory operation productivity for clinical diagnostics, drug discovery and life sciences research applications by providing high-quality staining and imaging solutions.

Ordering Information

BioGenex Customer Service

Please call our Customer Service department from 07:00 A.M. to 04:00 P.M. (PST), Monday through Friday, to place an order or to inquire about an existing order.

Telephone (toll-free)	1-(800)-421-4149 (Option 1)
Fax	1-(510)-824-1490
Online Orders	www.biogenex.com
E-mail	customer.service@biogenex.com
Mail Orders	BioGenex Laboratories, Inc. Attention to: Customer Service 48810 Kato Road, Suite 100E &200E Fremont, CA 94538

Quote request can also be placed via our website.
To expedite the order process, please include the following information on your purchase order or correspondence:

- Purchase order number
- Customer number
- Name, phone and fax number of person ordering
- Shipping address (please do not use P.O. Box number)
- Billing address (if different from above)
- Name of product, catalog number, quantity, and price
- Special shipping instructions
- Credit card number and expiration date (for credit card payments)

International Orders

To place an order from outside the US, please contact your local BioGenex channel partner/distributor. For online orders please visit our website www.biogenex.com For countries where BioGenex does not have any channel partners / distributors, please e-mail us at internationalcs@biogenex.com

Opening a New BioGenex Account

First time orders paid by credit card (see under Payment) will be processed and shipped immediately. For other payment methods please accept a delivery time of up to five business days for credit verification purposes.

Credit Terms

Net 30 days in U.S. Dollars, upon approval. Overdue accounts are subject to a finance charge of 1.5% per month (18% per annum).

Confirming Orders

To avoid duplication of your shipment, please mark boldly “confirming order - please do not ship” on your order.

Pricing

All prices are quoted in U.S. dollars, exclusive of state and county sales tax, where applicable. Prices are valid only for shipments within U.S. and are subject to change without notice. Please inquire about our standing order and quantity discount policies.

Shipping

Shipping and handling charges are prepaid and added to the invoice. They vary with the destination, weight and content, and are available upon request at order entry and are indicated on the invoice. Reagent orders received by 2:00 P.M. (PST), Monday through Thursday, will generally be Expedited Shipping for Next Day Delivery. Early A.M. and Saturday delivery is available upon request.

Payment

All payments must be made in U.S. dollars. The following methods of payment are accepted:

- Bank transfer (see invoice for instructions)
- Check, drawn on a U.S. bank, made payable to: “BioGenex Laboratories, Inc.”
- MasterCard®
- Visa®
- American Express®

Return Policy

Reagents are covered by the following Total Quality Assurance policy which states:

If you are not completely satisfied with the quality of our reagents, you may return them to us along with poor stained slides and filled RMA form for a refund or replacement, at our option.

BioGenex’ s liability is limited to a refund or replacement, at our option.

Please obtain a Return Material Authorization (RMA) number from Customer Service prior to the return of a product.

Returns, which are caused by unsatisfactory product performance, must be made within 30 days of delivery and will be subject to a 30% restocking fee.

Returns or replacements cannot be accommodated for expired products.

As BioGenex is an ISO13485 and USFDA compliant IVD manufacture, we can’t accept returned products without return material authorization, RMA. All returned products without RMA will be trashed.

General Information

Web Site

Upgraded

For the latest information on new product releases listed pricing, special offers and for placing an online order, please visit our new website, **www.biogenex.com**

Customer Support

Our technical support and customer service specialists are ready to provide fast and detailed Information for your questions and needs. Please call our toll-free number to reach us.

Customer Service USA

Tel: 1-(800)-421-4149 (Option 1)
Fax: 1-(510)-824-1490
E-mail: customer.service@biogenex.com

Technical Support USA

Tel: 1-(800)-421-4149 (Option 2)
Fax: 1-(510)-824-1490
E-mail: support@biogenex.com
Website: www.biogenex.com

Corporate Office

BioGenex Laboratories, Inc.
48810 Kato Road, Suite 200E
Fremont, CA 94538
Tel: 1-510-824-1400, 1-(800)-421-4149
Fax: 1-(510)-824-1490

Corporate Business

For general business matters not related to product orders or inquiries, please call us at 1-(800)-421-4149 or fax your correspondence to our main corporate business fax: 1-(510) 824-1490.

Trademarks

The following are trademarks of BioGenex Laboratories, Inc. USA

AccuSlide®	i6000™	XISH™
BioGenex®	MultiLink®	XMount™
EZ-Retriever®	NanoMtrx®	Xmatrx®
EZ-DeWax™	NanoVip™	XViz™
eXACT™	Neuvo®	XWash™
EZ-AR™	OptiPlus™	
GenoMx®	Power Block™	
InSite®	Super Mount®	
i500 Plus™	Super Sensitive™	

Additional Information

Nationwide Training Workshops

As a service to our customers, BioGenex has developed lectures and workshops on the full range of Immunohistochemistry and *in situ* Hybridization techniques. Please call our Technical Support Department or Regional Account Executive for more information on how you can participate in our educational workshops. Topics include the following:

- Basic Immunohistochemistry
- Tumor Panels
- Microwave-Based Antigen Retrieval
- ER/PR Immunostaining
- Troubleshooting
- Automation
- *in situ* Hybridization
- Double Staining
- Multiplexing and Co-detection of Protein and Nucleic Acid Biomarkers

Free Technical Literature

In addition to the educational brochures produced by BioGenex, we offer other technically useful information to the histopathology specialists on our website, www.biogenex.com where you can download our data sheet, product catalog or relevant presentation that may accompany each product assay protocols, kit instruction manuals and conference posters. Please call our Technical support department to request specific items or to add your name to our mailing list.

Technology Partnering Opportunities

We are always interested in licensing innovative technology that will be useful to our customers. If you are a researcher and have new antibody clones or other new diagnostic technologies please think of BioGenex as a potential partner in marketing your inventions and discoveries. We have the scientific expertise and marketing experience necessary for the successful commercialization of your technical achievements. BioGenex has an active Research and Development program fully staffed with PhD and MD professionals who are experienced in immunopathology, protein chemistry, and molecular biology. For more information on technology transfer opportunities, please contact us at customer.service@biogenex.com

Automation

Automated Platforms for Molecular Pathology

BioGenex is a pioneer in the design, development and manufacturing of advanced systems for automation of cell- and tissue-based staining. To accommodate diverse laboratory needs, we offer an array of clinical and research automation platforms that meet globally accepted quality standards (ISO13485:2016 & ISO9001:2015), are approved by the FDA and are specifically designed to improve laboratory workflow, productivity, and reproducibility.

Xmatrx® systems are the direct result of our innovative platform technology innovation. They offer a variety of automation, throughput and assay applications. Our key technology differentiators include the eXACT™ temperature control and reaction micro-chamber- improving IHC results and enabling Nucleic Acid-based Diagnostics (NADx).

- Xmatrx® Infinity is a high-performance staining platform for life sciences and translational research
- Xmatrx® ELITE integrates All-in-One and All-at-Once staining of IHC, ISH, special stains and beyond
- NanoVip™ Infinity is a ten-slide automated system specifically designed for FISH
- NanoVip™300 Infinity is a High-throughput automated system
- NanoVip™ Diagnostics is a ten-slide automated system
- NanoVip™300 Diagnostics is a High-throughput automated system
- Neuvo enables in situ PCR and nucleic acid hybridization with tools for building micro-chamber
- NanoMtrx®100 Infinity is a High-throughput automated system
- NanoMtrx®300 Infinity is a High-throughput automated system

i6000™ systems (Infinity & Diagnostics) are robust high-throughput platforms for IHC with staining capacity of 200 slides in 8 hours. These systems are supplied together with the EZ-Retriever® IR System, Microwave-based Dewaxing and Antigen Retrieval.

1. Clinical platforms: Support LIMS connectivity for data tracking and management, contain Barcode or QR code enabled technologies and include over 400+ optimized protocols with ready to use reagents in barcode or QR code labeled vials (Xmatrx®, i6000™, NanoVip™, NanoVip™300, NanoMtrx®300). These systems are FDA approved for In Vitro Diagnostic (IVD) applications including: immuno-histochemistry (IHC), in situ hybridization (ISH) and co- detection.

Clinical Platforms / Application	IHC	ISH/CISH	Double Staining	FISH	PCR
Xmatrx® ELITE	√	√	√	√	√
NanoVip™ Diagnostics	√	√	√	√	√
NanoVip™ 300 Diagnostics	√	√	√	√	√
i6000™ Diagnostics	√	NA	√	NA	NA

2. Research platforms: Offer infinite possibilities for translational and clinical research. They include flexible open system software for easily creating, editing and saving protocols and enable automation of any slide-based assay including immuno-histochemistry (IHC), *in situ* hybridization (ISH), fluorescence *in situ* hybridization (FISH), immuno-fluorescence (IF), co-detection and multiplex applications (double and triple stains; IHC/ISH), micro-RNA and special staining.

Research Platforms / Application	IHC	ISH/CISH	Double Staining	FISH	IF	miRNA ISH	Multiplexing (ISH + IHC)	PCR
Xmatrx® Infinity	√	√	√	√	√	√	√	√
i6000™ Infinity	√	NA	√	NA	√	NA	NA	√
NanoVip™ Infinity	√	√	√	√	√	√	√	√
NanoVip™ 300 Infinity	√	√	√	√	√	√	√	√
NanoMtrx® 100 Infinity	√	√	√	NA	√	NA	NA	√
NanoMtrx® 300 Infinity	√	√	√	NA	√	NA	NA	√
Neuvo	√	√	√	√	√	√	√	√

3. Nucleic Acid Diagnostics (NAD) dedicated Platforms: NanoVIP and Neuvo, are the most economical and flexible automation platforms for FISH, ISH. These systems are small in size, contain 10 independent eXACT™ thermal cyclers that can run 10 different protocols simultaneously. NanoVIP instruments contain on-board wash, Neuvo has manual wash. These instrumentshave audio-visual alerts and a user-friendly software with ability to add or delete cycles, store protocols for future use and perform, deparaffinization, antigen retrieval, hybridization, washing and up to 45 PCR cycles.

NAD Platforms / Application	ISH/CISH	FISH	miRNA ISH	PCR
NanoVip™	√	√	√	√
Neuvo	√	√	√	√

4. Other Systems: The EZ-Retriever® IR System system is designed to work seamlessly with i6000™, providing Eco-friendly De-waxing, Rehydration and Antigen Retrieval in one step, for high-throughput applications. The system provides uniform heating and optimized factory protocols, assuring clean, intense and reproducible staining results. The i500™ Plus is a LIMS enabled barcode label printer for integrated digitized data tracking.

Other Systems	Description
EZ-Retriever® IR System	Pre-treatment and antigen retrieval system using a programmable microwave oven with built-in temperature control
i500 Plus™	LIMS enabled barcode label printer compatible with Xmatrx® and i6000™

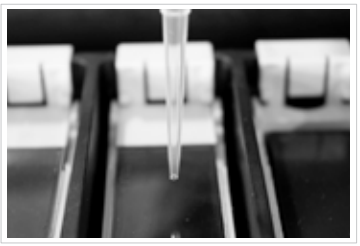
Clinical Platforms

NanoVip™ 300 *Diagnostics*

State-of-the-art · Fully Automated All-In-One ISH, IHC

- Fully Automated Microtome to Microscope
- Automates any slide-based assay
- In-built Camera detects the tissue size & location
- Draws hydrophobic Microchamber around the tissue section
- Dispenses as little as 2 µL at the selected spot
- Liquid level sensors for accurate liquid handling

NanoVip™ Diagnostics



State-of-the-art · Fully Automated ISH and IHC System

· Compact and benchtop design: Fully automated system process ten slides.

· Manual reagent application option: Allows for the manual application of high-cost reagents such as FISH probes.

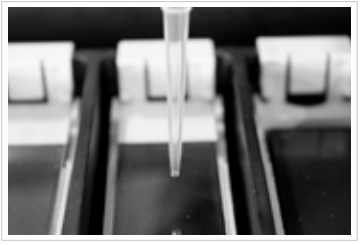
· Flexible open system: Facilitates the creation and optimization of new protocols.

· Liquid level sensors: Ensure precise handling of reagents.

· Cost-efficient operation: Minimizes reagent usage, reducing overall costs.

· Precise dispensing: Minimum reagent dispensing volume of 2 µL.

Xmatrx® Elite



Three Simple Steps:

Load ➡ Click ➡ View

The most advanced fully automated system for IHC, ISH, SS Co-detection, and multiplexing

- 40 independent protocols simultaneously
- Fully automated, including baking, dewaxing & antigen retrieval
- eXACT™ temperature control on every slide (RT-105 °C)
- Bar-Coded reagent vials and slides to eliminates human errors
- Wide reagent dispense volumes: 10 µL to 200 µL
- BioGenex's proprietary coverslip mechanism
- Over 600+ optimized protocols with ready-to-use (RTU) reagents
- LIMS - enabled data tracking and management*
- Liquid level sensor for accurate reagent handling
- System allows use of 3rd party antibodies

* optional software

i6000™ Diagnostics

Integrated high-throughput workflow solution

IHC, Multiplex

- Clean, crisp and intense stains
- High throughput – Up to 200 slides in eight-hour shift, 60 slides in 3 hours
- Over 600+ optimized protocols with ready to use reagents in barcoded vials
- Dispense reagents as low as 100 µL/slide
- Multiple slide processing options - Random, Continuous and STAT
- Multi-format specimen processing - FFPE or frozen tissues, cell preparations, fine needle aspirates, smears and more...
- Color-coded GUI with real-time assay parameter display for all slides
- Customized or standard reports for inventory management and regulatory compliance and submission

EZ-Retriever® IR System

Pre-treatment and Antigen Retrieval System

- Precise temperature detection thru IR sensor Large touch
- screen for easy setup of protocols
- Dewax, rehydration, and antigen retrieval
- 96 slides in under 30 min
- Superheating fluid: No boils and spills
- Ultraclean intense stain
- Antigen, nucleic acid and decal retrieval

Clinical Platforms Specification

Specifications	Xmatrx® ELITE	i6000™ Diagnostics	NanoVip™ Diagnostics	NanoVip™300 Diagnostics
Automation	Full (baking through cover slip	Automated. Supplied with The EZ-Retriever® IR System for Dewax & Antigen retrieval	Full (baking through coverslip)	Full (baking through final coverslip)
Run Time (full slide load)	5.5 hours	2.5 hours	4.0 hours	3.5 hours
Throughput (8 hours)	60 slides	200 slides	-	-
Temperature Range	Ambient to 105°C	NA	15-30°C	25-105 °C
Reagent Dispensing Volume	10-200 µL	100-200 µL	2 µL-180 µL	2 µL - 200 µL
Slide Capacity	40	60	10	30
Reagent Capacity	49	60	24	40
Reader	Barcode	Barcode	QR code	QR code
Bulk Reagent Carboy	7 x 4 L	2 x 10 L	5 x 1 L	5X2 L
Waste Container	2 X 8 L	20 L	1X5 L	10 L
Languages enabled	English	English, Chinese, German	English, Chinese, German	English, Chinese, German
LIMS - enabled data tracking and management	√	√	√	√
Protocols	>400, preloaded	>400, preloaded	>400, preloaded	>400, preloaded
Dimensions (D/W/H)	29” x 46” x 66”	24” x 40.5” x 18.5”	21” x 31” x 21”	28” x 39” x 29”
Weight	400 lb/ 182 kg	130 lb / 59 kg	106 lb/48 Kg	232 lb/105 Kg

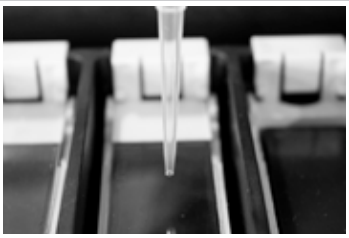
Research Platforms

NanoVip™ 300 *Infinity*

State-of-the-art · Fully Automated All-In-One FISH, ISH, IHC

- Fully Automated Microtome to Microscope
- Automates any slide-based assay
- Baking to DAPI (FISH) & Final Coverslip
- In-built Camera detects the tissue size & location
- Draws hydrophobic Microchamber around the tissue section
- Dispenses as little as 2 µL at the selected spot

NanoVip™ *Infinity*



State-of-the-art · Fully Automated FISH, ISH and IHC System

· Compact and benchtop design: Fully automated system process ten slides.

· Manual reagent application option: Allows for the manual application of high-cost reagents such as FISH probes.

· Flexible open system: Facilitates the creation and optimization of new protocols.

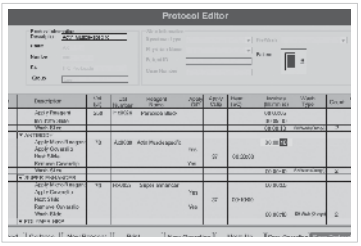
· Liquid level sensors: Ensure precise handling of reagents.

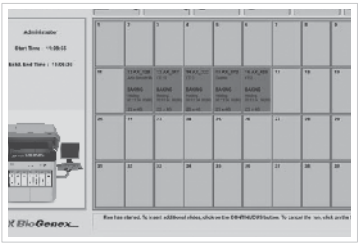
· Cost-efficient operation: Minimizes reagent usage, reducing overall costs.

· Precise dispensing: Minimum reagent dispensing volume of 2 µL.

Xmatrx® Infinity

Infinite Possibilities...For Translational and Clinical Research





All-in-One - IHC, IF, ISH, CISH, FISH, and miRNA

- Intelligent and flexible system offering infinite possibilities – IHC, ISH, FISH, CISH, IF, Multiplexing and Co-detection
- Simultaneous optimization of up to 40 parameters in single run
- Reaction micro-chamber reduces micro-reagent consumption by up to 90%
- 40 independent thermocyclable (PCR) workstations
- Intuitive software designed for ease of use and flexibility
- Reports for inventory management and regulatory compliance
- Multiple slide processing options – Random, Continuous and STAT

i6000™ Infinity

Integrated high-throughput workflow solution

Multi-functional System - Multiplex IHC

- Fully open system to customize any manual protocol
- Simultaneous optimization of up to 60 assay parameters
- Disposable pipette tips – eliminates cross contamination
- Audio and visual alerts at every step for manual intervention
- Customized reporting system for detailed report generation
- Multiple slide processing options – Random, Continuous and STAT

Research Platforms Specification

Specifications	Xmatrx® Infinity	i6000™ Infinity	NanoVip™ Infinity	NanoVip™300 Infinity	NanoMtrx®100 Infinity	NanoMtrx®300 Infinity	Neuvo®
Automation	Full (baking through cover slip)	Automated staining	Full (baking through cover slip)	Full (baking through cover slip)	Full	Full	Manual
Run Time (full slide load)	Open System / User defined	Open System / User defined	Open System / User defined	Open System / User defined	Open System / User defined	Open System / User defined	Open System / User defined
Temperature Range	25 - 105 °C	15-30 °C	Ambient to 15-30 °C	Ambient to 105 °C	Ambient to 15-30 °C	Ambient to 105 °C	Ambient to 15-30 °C
Reagent Dispensing Volume	10-200 µL	100-200 µL	2-180 µL	10-200 µL	200 µL	200 µL	Manual Dispense
Slide Capacity	40	60	10	30	10	30	10
Reagent Capacity	49	60	24	40	24	40	NA
Bulk Reagent Carboy	7 x 4 L	2 x 10 L	5 x 1 L	5 x 2 L	5 x 1 L	5 x 2 L	1 x 1 L
Waste Container	2 X 8 L	1 X 20 L	1 X 5 L	1 X 10 L	1 X 5 L	1 X 10 L	1 X 5 L
Auto Drain	NA	NA	√	√	√	√	NA
Languages enabled	English	English, Chinese, German	English	English	English	English	English
LIMS - enabled data tracking and management	√	√	√	√	√	√	NA
Auto DAB	√	√	√	√	√	√	NA
Ease of slide loading	√	√	√	√	√	√	√
Protocols	Template / Self	Template / Self	Template / Self	Template / Self	Template / Self	Template / Self	Template / Self
Dimensions (D/W/H)	29”/66”/59”	24”/40.5”/18.5”	21”/31”/21”	28” x 39” x 29”	21”/31”/21”	28” x 39” x 29”	13”/20”/8.5”

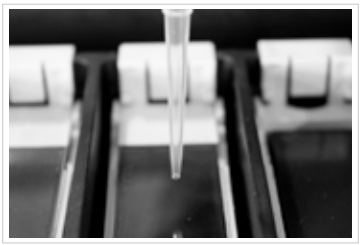
Nucleic Acid Diagnostic Platforms

NanoVip™ 300

State-of-the-art · Fully Automated All-In-One FISH, ISH, IHC

- Fully Automated Microtome to Microscope
- Automates any slide-based assay
- Baking to DAPI (FISH) & Final Coverslip
- In-built Camera detects the tissue size & location
- Draws hydrophobic Microchamber around the tissue section
- Dispenses as little as 2 µL at the selected spot
- Liquid level sensors for accurate liquid handling

NanoVip™



All-in-One - FISH,ISH, miRNA ISH and IHC

· Compact and benchtop design: Fully automated system process ten slides.

· Manual reagent application option: Allows for the manual application of high-cost reagents such as FISH probes.

· Flexible open system: Facilitates the creation and optimization of new protocols.

· Liquid level sensors: Ensure precise handling of reagents.

· Cost-efficient operation: Minimizes reagent usage, reducing overall costs.

· Precise dispensing: Minimum reagent dispensing volume of 2 µL.

Neuvo®

eFISHiency Workstation

- eFISHiency Workstation for manual FISH assay
- Hybridizer with eXACT™ temperature controls
- 10 Independently programmable thermal cyclers
- Built-in touch screen display
- Manual coverslip application and removal

Accessories

Oil stamp

Coverslip stand

Suction pen

Nucleic Acid *In Situ* Research Platform Specification

Specifications	NanoVip™	Neuvo®
Automation	Full Automation	Work Station
Run Time (full slide load)	Open System / User defined	Open System / User defined
Temperature Range	Ambient to 105 °C	Ambient to 105 °C
Reagent Dispensing Volume	10-200 uL	NA
Slide Capacity	10	10
Reagent Capacity	24	NA
Bulk Reagent Carboy	5 x 1 L	1 X 1 L
Waste Container	5 L	5 L
Touch Screen	NA	√
Languages enabled	English	English
LIMS - enabled data tracking and management	√	NA
Protocols	Template / Self	Template / Self
Dimensions (D/W/H)	21”/31”/21”	13”/20”/8.5”
Weight	106 lb/ 48 kg	30 lb/ 14 kg

eFISHiency - FISH Made Easy

NanoVip™ 300

All-in-One FISH . ISH . IHC

- Fully Automated Microtome to Microscope
- Automates any slide-based assay
- Baking to DAPI (FISH) & Final Coverslip
- In-built Camera detects the tissue size & location
- Draws hydrophobic Microchamber around the tissue section
- Dispenses as little as 2 µL at the selected spot

Three Simple Steps:

Load ➡ Click ➡ View

NanoVip™

All-in-One FISH . ISH . IHC

- Compact and benchtop design: Fully automated system process ten slides.
- Manual reagent application option: Allows for the manual application of high-cost reagents such as FISH probes.
- Flexible open system: Facilitates the creation and optimization of new protocols.
- Liquid level sensors: Ensure precise handling of reagents.
- Cost-efficient operation: Minimizes reagent usage, reducing overall costs.
- Precise dispensing: Minimum reagent dispensing volume of 2 µL.

Three Simple Steps:

Load ➡ Click ➡ View

Xmatrx® Elite

Microtome to Microscope

- The world's first and only fully automated front-end FISH processing system
- Run up to 40 slides under multiple protocols
- Reduce hands-on tech time from 7.5 hours to 30 minutes

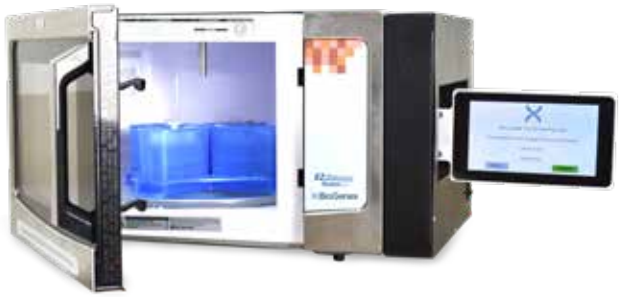
33 Steps Reduced to 3

Load ➡ Click ➡ View

Other Systems

EZ-Retriever® IR System

- Precise temperature detection thru IR sensor
- Large touch screen for easy setup of protocols
- Dewax, rehydration, and antigen retrieval
- 96 slides under 30 min
- Superheating fluid: No boils and spills
- Ultraclean intense stain
- Antigen, nucleic acid and decal retrieval



Neuvo®

eFISHiency Workstation

- eFISHiency Workstation for manual FISH assay
- Hybridizer with eXACT™ temperature controls
- 10 Independently programmable thermal cyclers
- Built-in touch screen display
- Manual coverslip application and removal

Accessories

Oil stamp

Coverslip stand

Suction pen

i500 Plus™

LIS Enabled Barcode & QR code Label Printer

Integrated Digitized Data Tracking System

- For printing chemical resistant barcode & QR code labels
- Barcode labels compatible with Xmatrx® and i6000™
- QR code labels compatible with NanoVip™, NanoVip™300 NanoMtrx®100 and NanoMtrx®300.
- User-friendly software
- Synchronization of protocol information
- Efficient system
  - Eliminates human error
  - Helps reduce operating cost
  - Fast turn-around

internationalcs@biogenex.com

Automated Staining Systems

Product Name	Cat. No.
Xmatrx® ELITE	AS4040B
Xmatrx® Infinity	AS4000RX
NanoVip™ Diagnostics	AS1050
NanoVip™ Infinity	AS1020
Neuvo®	AS1060
i6000™ Diagnostics	AS6030
i6000™ Infinity	AS6040
NanoVip™300 Diagnostics	AS3020
NanoVip™300 Infinity	AS3010
NanoMtrx®100 Infinity	AS1030
NanoMtrx®300 Infinity	AS3000

eFISH Visualization Kits

eFISH Visualization kit is intended for use in a fluorescence in situ hybridization (FISH) procedure and is optimized to detect target nucleic acid sequences. It is designed to detect fluorescent-labeled nucleic acid probes following their hybridization to the target DNA or RNA sequences.

Product Name	Contents	Pack Size	Cat. No.
eFISH Histo Xmatrx	EZ-AR™ 2 (1 x 5 mL), 1 x 200 mL Wash Buffer 1, 1 x 7 mL Liquid Pepsin, 1x12 mL Reagent A	20 Slides	DF500-20XE
eFISH Cyto Xmatrx	1 x 200 mL Wash Buffer 1, 1 x 200 mL Wash Buffer 2, 1 x 7 mL Liquid Pepsin, 1x20 ml Formalin Fixative	20 Slides	DF510-20XE
eFISH Histo NanoVip™	EZ-AR™ 2 (1 x 4 mL), 1 x 200 mL Wash Buffer 1, 1 x 6 mL Liquid Pepsin, 1x8 mL Reagent A	20 Slides	DF520-20X
eFISH Cyto NanoVip™	1 x 200 mL Wash Buffer 1, 1 x 200 mL Wash Buffer 2, 1 x 6 mL Liquid Pepsin, 1x8 ml Formalin Fixative	20 Slides	DF530-20X
eFISH Histo NanoVip™ (open system)	EZ-AR™ 2 (1 x 6 mL), 1 x 500 mL Wash Buffer 1, 2 x 6 mL Liquid Pepsin, 2x8 mL Reagent A	50 Slides	DF521-50X
eFISH Histo NanoVip™ (Close system)	EZ-AR™ 2 (1 x 6 mL), 1 x 500 mL Wash Buffer 1, 2 x 6 mL Liquid Pepsin, 2x8 mL Reagent A	50 Slides	DF522-50X
eFISH Cyto NanoVip™ (open system)	1 x 500 mL Wash Buffer 1, 1 x 500 mL Wash Buffer 2, 2 x 6 mL Liquid Pepsin, 2x8 ml Formalin Fixative	50 Slides	DF531-50X
eFISH Cyto NanoVip™ (Close system)	1 x 500 mL Wash Buffer 1, 1 x 500 mL Wash Buffer 2, 2 x 6 mL Liquid Pepsin, 2x8 ml Formalin Fixative	50 Slides	DF532-50X
eFISH Histo NanoVip™300	EZ-AR™ 2 (1 x 6 mL), 2 x 250 mL Wash Buffer 1, 1 x 12 mL Liquid Pepsin, 1x12 mL Reagent A	50 Slides	DF523-50X
eFISH Cyto NanoVip™300	2 x 250 mL Wash Buffer 1, 2 x 250 mL Wash Buffer 2, 1X12 mL Liquid Pepsin, 1X12ml Formalin Fixative	50 Slides	DF533-50X

Immunohistochemistry - Detection Kits

The XViz™ Detection System

All reagents except those for Xmatrx® Infinity are packed in barcode labeled vials especially designed for use on Xmatrx® Automated Staining Systems to ensure accurate identification, proper reagent inventory management and staining up to 200 slides.

Product Name	Pack Size	Cat. No.
XViz™ Detection Kit for Elite EZ-AR™ Elegance solutions (1 X 16 mL each of solutions 1, 2) 3X16 mL Peroxide Block, 3X16 mL Power Block™, 2 X 16 mL Super Enhancer, 2 X 16 mL Polymer HRP, 4 X 13 mL DAB Buffer, 1 X 4 mL DAB chromogen, 3 X 16 mL Hematoxylin	200 slides	QD550-YCDE
XViz™ Detection Kit for Xmatrx® Infinity EZ-AR™ Elegance Solution (1x14 mL each of solutions 1 and 2), 4x15 mL Peroxide Block, 2x20 mL Power Block, 1X14 mL Super enhancer, 1X14 mL Polymer HRP, 4X13 mL DAB buffer, 1x4 mL DAB Chromogen, 4x15 mL Hematoxylin.	200 slides	QD550-YCXE
New and Improved Super Sensitive™ Polymer-HRP IHC Detection for NanoVip™(Close System) EZ-AR™ Elegance solutions (1 X 8.5 mL each of solutions 1, 2) 3X8 mL Peroxide Block, 3X8 mL Power Block™, 2 X 8 mL Super Enhancer, 2 X 8 mL Polymer HRP, 4 X 7 mL DAB Buffer, 1 X 2 mL DAB chromogen, 3 X 8 mL Hematoxylin	100 slides	QD551-YCDEN
New and Improved Super Sensitive™ Polymer-HRP IHC Detection for NanoVip™(Open System) EZ-AR™ Elegance solutions (1 X 8.5 mL each of solutions 1, 2) 3X8 mL Peroxide Block, 3X8 mL Power Block™, 2 X 8 mL Super Enhancer, 2 X 8 mL Polymer HRP, 4 X 7 mL DAB Buffer, 1 X 2 mL DAB chromogen, 3 X 8 mL Hematoxylin	100 slides	QD551-YCXEN
New and Improved Super Sensitive™ Polymer-HRP kit for NanoVip™300 EZ-AR™ Elegance solutions (1 X 12 mL each of solutions 1, 2) 1X20 mL Peroxide Block, 1X20 mL Power Block™, 1X20 mL Super Enhancer, 1X20 mL Polymer HRP, 2X20 mL DAB Buffer, 1 X 2 mL DAB chromogen, 1X20 mL Hematoxylin	100 slides	QD552-YAXEN

Super Sensitive™ One-step Polymer-HRP Detection Kit

This kit is designed with the proprietary technology which provides superior sensitivity, specificity and very short protocol. The innovative secondary antibody-polymer conjugate consists of multiple small HRP active sites, which enables clean and intense, nuclear, cytoplasmic, and membrane stains.

Product Name	Contents	Pack Size	Cat. No.
Super Sensitive™ One-step Polymer-HRP Detection Kit/DAB	EZ-AR™ Elegance solutions (1 x 16 mL each of solutions 1, 2,), 3 x 16 mL Peroxide Block, 3 x 16 mL Power Block™, 2-one-step x 16 mL Polymer HRP, 4 x 13 mL DAB Buffer, 1 x 4 mL DAB chromogen, 3 x 16 mL Hematoxylin	200 Slides	QD610-YADE
New and Improved Super Sensitive™ 1-step Polymer-HRP Detection System for NanoVip™ (Close System)	EZ-AR™ Elegance solutions (1 X 8.5 mL each of solutions 1, 2) 3X8 mL Peroxide Block, 3X8 mL Power Block™, 2 X 8 mL 1-Step Polymer HRP, 4 X 7 mL DAB Buffer, 1 X 2 mL DAB chromogen, 3 X 8 mL Hematoxylin	100 Slides	QD611-YADEN
New and Improved Super Sensitive™ 1-step Polymer-HRP Detection System for NanoVip™ (Open System)	EZ-AR™ Elegance solutions (1 X 8.5 mL each of solutions 1, 2) 3X8 mL Peroxide Block, 3X8 mL Power Block™, 2 X 8 mL 1-Step Polymer HRP, 4 X 7 mL DAB Buffer, 1 X 2 mL DAB chromogen, 3 X 8 mL Hematoxylin	100 Slides	QD611-YAXEN
New and Improved Super Sensitive™ 1-step Polymer-HRP Detection System for NanoVip™300	EZ-AR™ Elegance solutions (1 X 12 mL each of solutions 1, 2) 1X20 mL Peroxide Block, 1X20 mL Power Block™, 1X20 mL 1-Step Polymer HRP, 2 X 20 mL DAB Buffer, 1 X 2 mL DAB chromogen, 1X20 mL Hematoxylin	100 Slides	QD612-YAXEN

XViz™ Double Staining Polymer Detection Kits

Product Name	Contents	Pack Size	Cat. No.
XViz™ Double Staining Polymer Detection Kit I/DAB&Fast Red	1 X 7 mL EZ-AR™ Elegance Solutions (1,2), 2 X 10 mL Peroxide Block, 2 X 10 mL Power Block, 4 X 5 mL DAB Buffer 1 X 3 mL Liquid DAB Chromogen, 1 X 7 mL Mouse Negative Control, 1 X 7 mL Rabbit Negative Control, 2 X 7 mL Anti Rabbit Poly-Hrp + Anti Mouse Poly-AP, 2 X 10 mL Hematoxylin, 2 X 15 mL DAB Buffer, 2mL DAB Chromogen, Red Buffer D 2X15 mL, Red Reagents A,B&C (1X0.8 mL each)	100 Slides	QS200-YADE
XViz™ Double Staining Polymer Detection Kit II/DAB&Fast Red	1 X 7 mL EZ-AR™ Elegance Solutions (1, 2), 2 X 10 mL Peroxide Block, 2 X 10 mL Power Block, 2 X 15 mL DAB Buffer 1 X 2 mL Liquid DAB Chromogen, 1 X 7 mL Mouse Negative Control, 1 X 7 mL Rabbit Negative Control, 2 X 7 mL Anti Mouse Poly-Hrp + Anti Rabbit Poly-AP, 2 X 10 mL Hematoxylin. Red Buffer D 2X15 mL, Red Reagents A,B&C (1X0.8 mL each)	100 Slides	QS400-YADE

Antigen Retrieval Solutions

The EZ-AR™ Elegance Solutions possess unique properties that enable optimal dewaxing, rehydration, and antigen retrieval in formalin-fixed, paraffin-embedded tissue sections. These solutions facilitate the production of highly reproducible and superior quality stains in a considerably short period of time without compromising the morphology and antigenicity of the tissue.

Xmatrx® Elite - in Barcode Labeled vials

Product Name	Product Description	Pack Size	Cat. No.
EZ-AR™ 1 Elegance	EZ-AR™ 1 Elegance is a Citra based solution. Works at 100°C	200 slides	HX031-YCD
EZ-AR™ 2 Elegance	EZ-AR™ 2 Elegance is an EDTA based solution. Works at 100°C	200 slides	HX032-YCD

Xmatrx® Infinity

Product Name	Product Description	Pack Size	Cat. No.
EZ-AR™ 1 Elegance	EZ-AR™ 1 Elegance is a Citra based solution. Works at 100°C	200 slides	HX031-YCX
EZ-AR™ 2 Elegance	EZ-AR™ 2 Elegance is an EDTA based solution. Works at 100°C	200 slides	HX032-YCX

Enzymatic Pre-treatment Solutions

Product Name	Pack Size	Cat. No.
Pepsin 4-Pack: 4 vials of Lyophilized Enzyme Powder, 4 x 6 mL Reconstitution Buffer	200 slides	EK000-10XE
Trypsin 4-Pack: 4 vials of Lyophilized Enzyme Powder, 4 x 6 mL Reconstitution Buffer	200 slides	EK001-10XE
Protease XXIV 4-Pack: 4 vials of Lyophilized Enzyme Powder, 4 x 6 mL Reconstitution Buffer	200 slides	EK002-10XE

In Situ Hybridization Kits and Probes

The XISH Detection Kit is designed for using with fluorescein labeled probes. It enables accurate detection of specific DNA and mRNA sequences in routine paraffin sections/cell smears.

ISH Probes*

Probes are packaged with barcode labeled vials for staining up to 25 slides.

Product Name	Intended Use	Pack Size	Cat. No.
Alu II DNA	Positive control probe for detection of primate DNA sequence repeat	25 slides	PR026-YADE
Beta-Actin	Internal standard for ISH and Northern blot	25 slides	PR1055-YADE
CerviPro HPV 14	Detection of high risk genotypes of human papillomavirus	25 slides	PR251-YADE
CerviPro HPV Type 16/18	Detection of HPV types 16 and 18	25 slides	PR250-YADE
Epstein Barr Virus Early RNA (EBER)	Detection of latent EBV infection	25 slides	PR205-YADE
Kappa	Detection of Kappa light chain mRNA	25 slides	PR214-YADE
Lambda	Detection of Lambda light chain mRNA	25 slides	PR215-YADE
Oligo dT	Assessment of mRNA preservation	25 slides	PR217-YADE
Retinoblastoma	Detection of Retinoblastoma mRNA	25 slides	PR225-YADE

*Research use only

One Step ISH Detection Kit

Product Name	Probe Type	Pack Size	Cat. No.
XISH™ One Step Polymer-HRP ISH Detection System 1. Liquid Pepsin 1X5ml 2. Nucleic Acid Retrieval Solution 1 x 5 mL 3. Hybridization Solution 1X6ml4. Wash Solution A 2 x 10 mL 5. Wash Solution B 2 x 10 mL 5. Wash Solution B 2 x 10 mL 6. Wash Solution E 2 x 10 mL 7. Wash Solution F 2 x 10 mL 8. Peroxide Block 1 x 10 mL 9. Power Block 1 x10 mL 10. Anti-Flourescein Antibody 1 x 5 mL 11. One step Poly-HRP Reagent 1 x 5 mL 12. 4 x 5 mL DAB Buffer, 13. Liquid DAB Chromogen 1 x 2 mL 14. 1 x 10 mL Hematoxylin 15. 1 x 5 mL Proteinase K	Fluorescein Labeled	100 slides	DF400-YADE

Empty Reagent Vials

Product Name	Pack Size	Cat. No.
User defined Empty barcode labeled vials- Two step IHC	Each	XT077-AX0601 to XT077-AX0800
User defined Empty barcode labeled vials- One step IHC	Each	XT077-AX0801 to XT077-AX0999
User defined Empty barcode labeled vials- ISH Probes	Each	XT079-PR0050 to XT079-PR0099

Consumable Kit

Product Name	Pack Size	Cat. No.
ISH Consumable Kit-Xmatrx® 2 x 52 nos 25 x 25 mm Microchamber Slides, 1 x 900 Nos of 25 x 25 mm Coverslips, 2 x 192 Large Pipette Tips (1 mL), 1 x 960 Nos of Pipette Tips (200 µL)	100 slides	XT144-YAD

Xmatrx® Consumables

Product Name	Pack Size	Cat. No.
Microchamber Slides, 18x18 mm, 2-zone, Xmatrx® ELITE & Infinity	1400 Slides/Case	XT114-CL
Microchamber Slides, 18x18 mm, 2-zone, Xmatrx® ELITE & Infinity	70 Slides/Box	XT114-SL
Microchamber Slides, 18x18 mm, Xmatrx® ELITE & Infinity	1400 Slides/Case	XT128-CL
Microchamber Slides, 18x18 mm, Xmatrx® ELITE & Infinity	70 Slides/Box	XT128-SL
Microchamber Slides, 25X25 mm, Xmatrx® ELITE & Infinity	1400 Slides/Case	XT108-CL
Microchamber Slides, 25X25 mm, Xmatrx® ELITE & Infinity	70 Slides/Box	XT108-SL
Microchamber Slides, 25X40 mm, Xmatrx® ELITE ISH & Infinity	1400 Slides/Case	XT134-CL
Microchamber Slides, 25X40 mm, Xmatrx® ELITE ISH & Infinity	70 Slides/Box	XT134-SL
Coverslips, 18x18 mm, Xmatrx® ELITE & Infinity	1750 Coverslips/Case	XT121-XBK
Coverslips, 18x18 mm, Xmatrx® ELITE & Infinity	175 Coverslips/Box	XT121-YBX

Product Name	Pack Size	Cat. No.
Coverslips, 25x25 mm, Xmatrx® Infinity & ELITE ISH	90 Coverslips/Box	XT122-90X
Coverslips, 25x25 mm, Xmatrx® Infinity & ELITE ISH	900 Coverslips/Case	XT122-YQK
Coverslips, 25x40 mm, Xmatrx® ELITE & Infinity	50 Coverslips/Box	XT118-50X
Coverslips, 25x40 mm, Xmatrx® ELITE & Infinity	500 Coverslips/Box	XT118-YRK
Reagent Vials, Brown, 20 mL, Xmatrx® Infinity	24/Pack	XT101-24X
Reagent Vials, Translucent, 20 mL, Xmatrx® Infinity	24/Pack	XT026-V24
Reagent vial - no lid, brown/2 mL vial holder for Xmatrx® ELITE	24/pack	XT126-24V
Pipette Tips, 1 mL, Xmatrx® ELITE & Infinity	960 Tips/Case	XT104-05X
Pipette Tips, 1 mL, Xmatrx® ELITE & Infinity	192 Tips/Box	XT105-01X
Pipette Tips, 200 µL, Xmatrx® ELITE & Infinity	960 Tips/Box	XT146-01X
Pipette Tips, 200 µL, Xmatrx® ELITE & Infinity	4800 Tips/Case	XT145-05X
Reagent Vial Insert, 2 mL	24/Pack	XT149-V24

Ancillary Reagents

DeWax Solutions†

BioGenex X-DeWax™ Solution is a “one-step” product that simultaneously enables the removal of paraffin and allows rehydration of the tissue with a single reagent. In the past, formalin-fixed, paraffin-embedded tissue sections were traditionally deparaffinized with highly toxic, noxious chemicals (i.e. xylene, equivalents). BioGenex, a pioneer in the Immunohistochemistry technology, offers a xylene-free product that removes the paraffin from mounted tissue slides easily and rapidly.

Product Name	Pack Size	Cat. No.
X-DeWax™ Solution (Ready-to-Use)	1000 mL	HX015-XAK†
X-DeWax™ Solution (Concentrated)	1000 mL	HX016-XAK†
X-DeWax™ Solution (Concentrated)	1 Gallon	HX016-XEK†

XMount™

Product Name	Pack Size	Cat. No.
XMount™ for Xmatrx® Elite (barcode)	200 slides	HX035-YCD
XMount™ for Xmatrx® Infinity	200 slides	HX035-10X

Wash Buffers

XWash™ Buffer provides optimal staining with minimal background.

Product Name	Pack Size	Cat. No.
SuperSensitive Wash Buffer	500 mL	HK583-5K
X-Wash Buffer, 20X for Xmatrx®	500 mL	HX020-YIK

FISH Application

Product Name	Cat. No.
Xmatrx® FISH Software	4812-00089

Note: Unless specified otherwise, all products listed in this section are for Laboratory Use Only.

† U.S. Patent No. 6,632,598; U.S. Patent No. 7, 070, 951; Japanese Patent No. 3532571; European Patent No. 0698118B1.

Detection Systems

Our all-inclusive, Super Sensitive™ Detection Systems contain all the reagents required for easy, fast, and exceptional staining. Each kit contains enough reagents to stain approximately 200 slides at 100 µL per slide. The following kit configurations are available to fit the laboratory's needs for any staining requirement. Reagents are offered in barcoded vials designed for use on the i6000™ Staining Systems.

Product Name	Pack Size	Cat. No.
Super Sensitive™ One-step Polymer-HRP Detection Kit/DAB	200 slides	QD610-YAXE
Super Sensitive™ Polymer HRP Detection System/DAB	200 slides	QD410-YAXE
Avidin/Biotin Blocking Kit RTU	200 slides	HK102-20XE
Avidin/Biotin Blocking Kit RTU	100 slides	HK102-10KE

OptiMiser Reagent Vials and Accessories (User Defined)

The OptiMiser reagent vials (U.S. & Foreign Equivalent Patents Pending) are available as a 20 mL disposable barcoded pack for use on the i6000™ staining systems.

Product Name	Pack Size	Cat. No.
OptiMiser Reagent Vials, Labeled (20 mL) (Empty Vials supplied with 100 corresponding slide barcode labels)	1 each	XT026-601 to XT026-899 XT026-601P to XT026-750P
OptiMiser Reagent Vials, Unlabeled (20 mL) White	Pack of 24	XT026-V24
OptiMiser Reagent Vials, Unlabeled (20 mL) Brown	Pack of 24	XT101-24X
OptiMiser Universal Vial Holders	Pack of 24	XT027-H24
OptiMiser Vial Caps	Pack of 24	XT022-CP
Reagent Empty Vial Labeled for User Probe	1 each	XT026-PR601 to XT026-PR615

Note: Unlabeled Vials - for open system only

Microchamber Slides, PAP Pen, and Barcode Labels

OptiPlus™ Positively-charged Microchamber Slides (U.S. & Foreign Equivalent Patents Pending) contain hydrophobic Microchambers that allow the quantity of reagent per slide to be tailored to the size of the specimen. These slides come in three configurations to accommodate different tissue sizes or multiple tissues per slide; A single full-size test area of 25 mm x 40 mm, a single 2/3-size test area of 25 mm x 30 mm, and three 1/3-size test areas per slide, each measuring 25 mm x 15 mm. The permanent hydrophobic Microchambers are compatible with dewaxing solutions and other reagents. The slides are suitable for use with frozen tissue sections, formalin-fixed paraffin sections, and cytology preparations.

Product Name	Pack Size	Cat. No.
OptiPlus™ Positively-charged Microchamber Slides (full test area)	1 box (70 slides)	XT134-SL
	1 case (20 boxes)	XT134-CL
OptiPlus™ Positively-charged Microchamber Slides (2/3 test area)	1 box (70 slides)	XT013-SL
	1 case (20 boxes)	XT013-CL
OptiPlus™ Positively-charged Microchamber Slides (3 x 1/3 test area)	1 box (70 slides)	XT014-SL
	1 case (20 boxes)	XT014-CL
PAP Pen (for 500 - 1000 slides)	1 each	XT001-PP
Slide Barcode Labels	100/sheet	AM6010 to AM7990 AR6010 to AR6600

Pipette Tips

Each pipette tip is carefully inspected to ensure optimal and accurate performance.

Product Name	Pack Size	Cat. No.
Pipette Tips for *i*6000™ (1.0 mL)	1 box (192 tips)	XT105-01X
Pipette Tips for *i*6000™ (1.0 mL)	5 boxes (960 tips)	XT104-05X

Ancillary Reagents

EZ-DeWax™ Solutions[1]

Tissue specimens are usually fixed and embedded in paraffin, sectioned on a microtome, and then attached to slides. Before immunostaining, the sections are traditionally deparaffinized with highly toxic, noxious chemicals (xylene and alcohols or equivalents). BioGenex offers a revolutionary product that simply, easily and rapidly removes the paraffin from mounted tissue slides. Use of non-xylene based BioGenex EZ-DeWax™ Solution permits a two-step application of a single reagent that completely removes the paraffin, rendering the tissue's antigenic sites accessible to the antibodies, chromogens and other aqueous solutions. The deparaffinization time is reduced from 45 minutes of manual processing to less than 15 minutes of automated dewaxing on the BioGenex i6000™ Automated Staining System using the EZ-DeWax™ Solution. The solution simultaneously removes paraffin and rehydrates the tissue.

Product Name	Pack Size	Cat. No.
EZ-DeWax™ Solution (Concentrated)[1] (Requires 500 mL of histologic grade ethanol for reconstitution)	500 mL	HK584-5K
EZ-DeWax™ Solution (RTU)[1]	1000 mL	HK585-5K

[1] US Patent No. 6,632,598; Japanese Patent No. 3532571; European Patent No. 0698118B1.

Enzymes for Pre-treatment

Some tissues require the use of enzymatic pre-treatment before staining to achieve standardized results depending on the antibodies and their different incubation and pre-treatment requirements.

Product Name	Pack Size	Cat. No.
Pepsin 4-Pack 4 vials of Lyophilized Enzyme Powder, Reconstitution Buffer 4 x 5 mL	200 slides	EK000-10KE
Trypsin 4-Pack 4 vials of Lyophilized Enzyme Powder, Reconstitution Buffer 4 x 5 mL	200 slides	EK001-10KE
Protease XXIV 4-Pack 4 vials of Lyophilized Enzyme Powder, Reconstitution Buffer 4 x 5 mL	200 slides	EK002-10KE
Diastase (Alpha-Amylase Kit) 4 vials of alpha-amylase, 4 vials of alpha-amylase diluent	200 slides	EK004-5KE

Wash Buffers

Super Sensitive™ Wash Buffers are used to ensure optimal staining with even spreading of antibodies and other reagents to avoid inconsistent results.

Product Name	Pack Size	Cat. No.
Super Sensitive™ Wash Buffer, 20X concentrated	500 mL	HK583-5K
X-Wash Buffer, 20X for Xmatrx®	500 mL	HX020-YIK
SS Wash Solution	500 mL	HK755-5K

EZ-AR™ Solutions

Product Name	Product Description	Pack Size	Cat. No.
EZ-AR™ 1 RTU[1]	EZ-AR™ 1 is a Citra based solution. Works at 107°C	1L	HK521-XAK
EZ-AR™ 2 RTU[1]	EZ-AR™ 2 is a EDTA based solution. Works at 107°C	1L	HK522-XAK
EZ-AR™ 2 RTU[1]	EZ-AR™ 2 is a EDTA based solution. Works at 107°C	2GL	HK522-XIKE
EZ-AR™ Common, Conc.[1] (5X)	DeWax solution. Use in combination with other EZ-AR™ solutions	1 L	HK545-XOK

i500 Plus™

Product Name	Cat. No.
*i*500 Plus™ LIS Enabled Barcode Label Printer	BLS500

Instrument Accessories

Product Name	Pack Size	Cat. No.
Resin Ribbon	1 Roll	XT034-XEX
Labels Roll	1 Roll	XT035-XBX

[1] U.S. Patent Numbers 6,451,551 and 5,578,452 (as well as foreign equivalents)

Tissue Pre-treatment & Antigen Retrieval

De-Waxing Solutions

One-Step DeWaxing and Rehydration Reagent

BioGenex deparaffinization solutions are “one-step” products that simultaneously enables the removal of paraffin and allows rehydration of the tissue with a single reagent. In the past, formalin-fixed, paraffin-embedded tissue sections were traditionally deparaffinized with highly toxic, noxious chemicals (i.e. xylene, equivalents). BioGenex, a pioneer in Immunohistochemistry technology, offers xylene-free products that remove paraffin from mounted tissue slides easily and rapidly.

1. EZ-DeWaxSol. – For all BioGenex manual methods.
2. X-Dewax Sol. – Optimized for Xmatrx® automation.

Features & Benefits

- Effectively removes paraffin and allows rehydration of the tissue in one step.
- Reduces deparaffinization time from 45 minutes to 10 minutes.
- Eliminates use of toxic solvents (xylene) and minimizes hazardous waste.
- Ready-to-Use (RTU) or 2x solutions (to be diluted 1:1 with ethanol) are available.

3. EZ-AR Common Sol. – Microwave facilitated deparaffinization.

Features & Benefits

- Conveniently perform deparaffinization and Antigen Retrieval in the same slide tank using microwave heating.
- Quick deparaffinization & rehydration in one step (10 minutes @ 70 ^{O}C default protocol).
- Reduces the use of alcohol in preparing tissue sections for IHC, ISH, H & E, FISH.
- Eliminates use of toxic solvents (xylene) and minimizes hazardous waste.

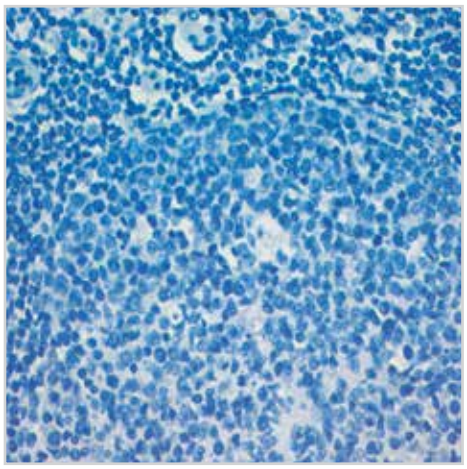
Product	1000 mL(RTU)	1000 mL/500 mL(2x)	1 Gallon(2x)
X-DeWax (Xmatrx®)	HX015-XAK	HX016-XAK (1000 mL)	HX016-XEK
EZ-DeWax (Manual/i6000™)	HK585-5k	HK584-5k (500 mL)	NA
EZ-AR Common Sol 1000 mL(5x)	HK545-XOK	-	-

Antigen Retrieval Method

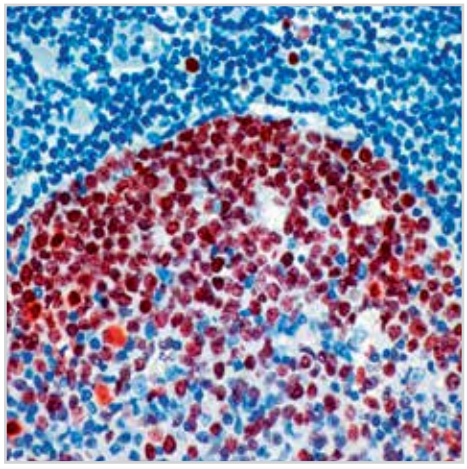
BioGenex is the inventor of Antigen Retrieval enabling technology. Antigen Retrieval is an effective way of unmasking antigenic epitopes on the surface of formalin-fixed, paraffin-embedded tissue sections using microwave heating. Covered by exclusive patents issued to BioGenex, this method has been routinely practiced in laboratories throughout the world. The Antigen Retrieval technique breaks the formalin induced cross-linking bonds between epitopes and unrelated proteins, there by allowing better penetration of antibody and accessibility of epitopes.

Advantages of the method:

- Enhanced exposure of antigenic epitopes on the surface of the tissue section
- Reduced time for primary antibodies incubation
- Consistent and reliable staining quality
- Eliminates false negative staining results in FFPE tissue sections



Tonsil tissue stained with anti-Ki-67 antibody
using AEC chromogen without antigen retrieval



Tonsil tissue stained with anti-Ki-67 antibody
using AEC chromogen with antigen retrieval

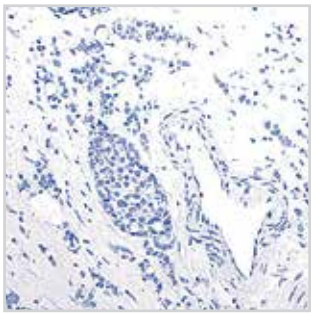
Different antibodies require different conditions for Antigen Retrieval. BioGenex offers several types of Antigen Retrieval Solutions.

1. Antigen-Retrieval(AR) Solutions – For Manual Use & i6000™

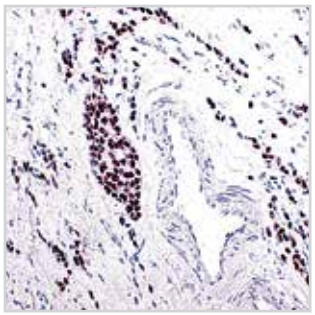
Product	Method	Features & Recommended Use
Citra	Microwave,95-100 °C	pH~6, excellent for most BioGenex Antibodies*
Citra Plus	Microwave, 95-100 °C	Enhanced formulation pH~6, for antibodies such as Estrogen Receptor (clone ER88), HSP27 (G3.1) and CDX-2 (CDX2-88)*
AR-10	Microwave, 95-100 °C	Tris-Based, high pH-10, for antibodies such as Caldesmon (clone h-CD), CD3 (PS1), c-myc (9E10)& GLEPP1 (5C11)*
H&E	Microwave or Room Temp. 25-100 °C	Best for burnt, overfixed or dried FFPE tissues, over-DeCal (bone marrow biopsies) and fragile/over processed specimens (e.g. needle biopsies). Can be used at room temp. for some frozen tissue sections and tissues with freezing artifacts
DeCal	Room Temp.20-25 °C	For acid-decalcified bone marrow & formalin-fixed tissues embedded in paraffin or celloidin

* See datasheets for BioGenex recommended Antigen Retrieval for each specific antibody.

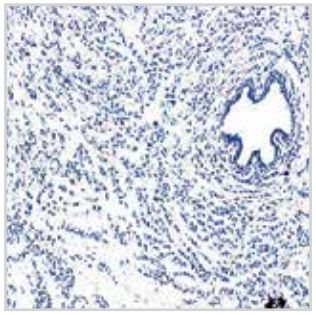
Product	100 mL(10x)	500 mL(10x)	250 mL(RTU)	1000 mL(RTU)
AR Citra Sol. pH-6.0	HK086-5K	HK086-9K	HK087-5K	HK087-20K
AR Citra Plus Sol. pH-6.2	HK080-5K	HK080-9K	HK081-5K	HK081-20K
AR-10 Sol. (Tris) pH-10	HK057-5K	NA	HK058-5K	HK058-20K
H&E Retrieval	HK169-5K	NA	NA	NA
DeCal Retrieval Sol.	NA	NA	HK089-5K	NA
AR Sol (EDTA) pH- 9.0	NA	NA	NA	HK549-XAK(10X)



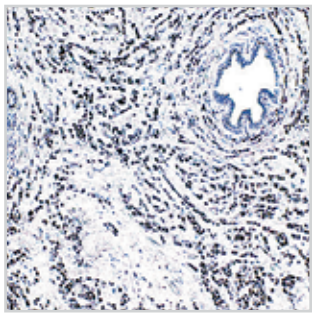
Breast Carcinoma tissue stained with Anti-Progesterone Receptor [PR88] MAb, using AEC chromogen without Antigen Retrieval.



Breast Carcinoma tissue stained with Anti-Progesterone Receptor [PR88] MAb, using AEC chromogen with Antigen Retrieval using Citra.



Breast Carcinoma tissue stained with Anti-Estrogen Receptor [ER88] MAb, using DAB chromogen without Antigen Retrieval.



Breast Carcinoma tissue stained with Anti-Estrogen Receptor [ER88] MAb, using DAB chromogen with Antigen Retrieval using Citra Plus.

2. Enhanced Antigen-Retrieval (EZ-AR) Solutions – For Manual & i6000™ Use

Features & Benefits:

- Unique superheating properties - Increases the availability of antigenic epitopes in tissues
- Short and standardized protocols for all BioGenex antibodies - Eliminates guesswork in optimizing protocols
- Fast uniform heating and cooling of solutions - Reduces tissue pretreatment time
- Non-hazardous, non-flammable, and odorless - Safe and Eco-friendly

Product	Method	Features & Recommended Use
EZ-AR 1	EZ-Retriever® IR System or Microwave, 107 °C	Citra based, pH~6, excellent for most BioGenex Antibodies*
EZ-AR 2	EZ-Retriever® IR System or Microwave, 107 °C	EDTA based, pH~8.5, for antibodies such as Ki67 (EP5), CD5 (EP2952) and NGF Receptor (EP1039Y)*

* See datasheets for BioGenex recommended Antigen Retrieval for each specific antibody.

Product	1 L (RTU)	2 GL (RTU)	500 mL (10x)
EZ-AR 1 Sol (Citra)	HK521-XAK	NA	NA
EZ-AR 2 Sol (EDTA)	HK522-XAK	HK522-XIKE	NA

3. EZ-AR Elegance Antigen Retrieval Solutions – Superheating boil-free solutions

Features & Benefits:

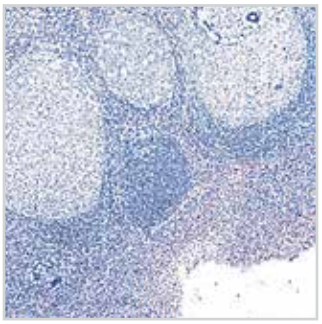
- Optimized for Xmatrx® with standardized protocols for all BioGenex antibodies
- Reaches 107 °C without boiling - Minimizes evaporation & preserves morphology

Product	Method	Features & Recommended Use
EZ-AR 1 Elegance	Xmatrx® Automation Works at 100-105 °C	Citra based, pH~6, excellent for most BioGenex Antibodies*
EZ-AR 2 Elegance	Xmatrx® Automation Works at 100-105 °C	EDTA based, pH~8.5, for antibodies such as Ki67 (EP5), P27 (Y236) and P53 Protein (DO7)*

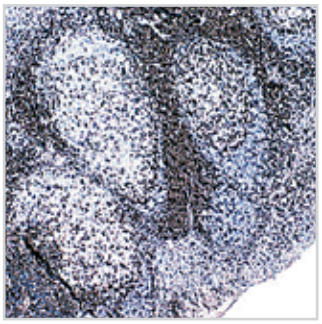
* See datasheets for BioGenex recommended Antigen Retrieval for each specific antibody.

Product	Xmatrx® Elite/Ultra# 200 Slides**(RTU)	Xmatrx® Infinity## 200 Slides**(RTU)	Manual/Open Sys.^ 1000 mL(RTU)
EZ-AR 1 Elegance (Citra)	HX031-YCD	HX031-YCX	HK546-XAK
EZ-AR 2 Elegance (EDTA)	HX032-YCD	HX032-YCX	HK547-XAK

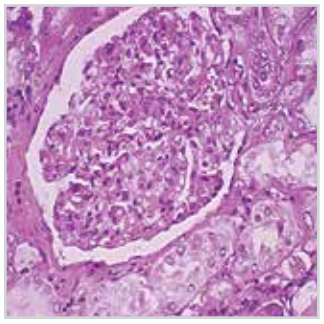
** 80 µL/test for Xmatrx® Elite/Ultra, 70 µL/test for Xmatrx® Infinity
^ Reagent vials for Xmatrx® Infinity need to be purchased separately



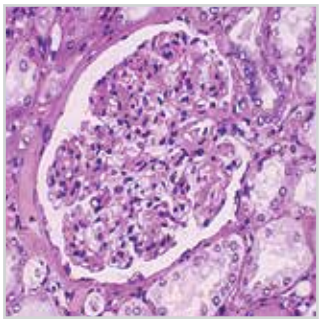
Tonsil tissue stained with anti-CD3 MAb using DAB chromogen without Antigen Retrieval using AR-10†.



Tonsil tissue stained with anti-CD3 MAb using DAB chromogen with Antigen Retrieval using AR-10†.



Burnt kidney tissue stained after standard pre-treatment.

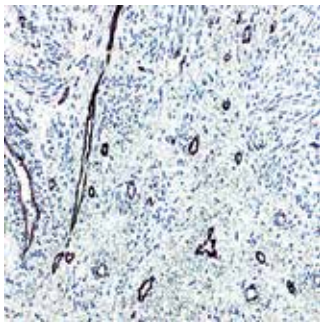


Nuclear data restored by microwave heating in H&E Solution.

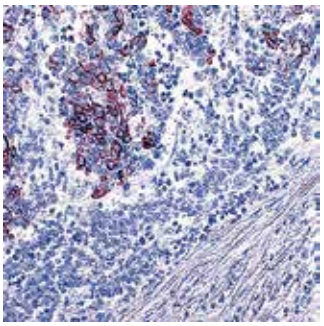
Enzymes for Tissue Digestion

Some tissues require the use of enzymatic pre-treatment before staining to achieve standardized results depending on the antibodies and their different incubation and pre-treatment requirements.Each kit contains three or four vials of lyophilized enzyme powder and

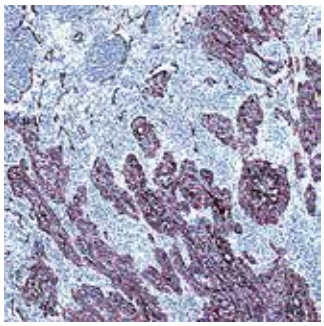
1. The Trypsin and Pepsin kits contain well-established enzymes suitable for routine pre-treatment at 37°C.
2. Protease XXIV kits contain a universal digestive agent that allows for fast and effective pre-treatment at room temperature.
3. The diastase (Alpha-amylase) catalyzes breakdown of starch. Diastase is often used prior to periodic acid-Schiff (PAS) staining and is useful as an aid in the evaluation of glycogen storage disease.



Leiomyoma tissue stained with Factor VIII MAb using AEC chromogen following Pepsin Pre-treatment.



Colonic adeno carcinoma stained with Anti-Cytokeratin 20 MAb following Protease Pre-treatment.



Squamous Carcinoma tissue stained with Anti-Cytokeratin (High Molecular Weight) MAb using AEC chromogen following Trypsin Pre-treatment.

Product	Manual### 150 Slides/3 pack	i6000™## 200 Slides/4 pack	Xmatrx®# 200 Slides/4 pack
Diastase (Alpha-Amylase)	NA	EK004-5K	NA
Pepsin	EK000-5K	EK000-10K	EK000-10X
Protease XXIV	EK002-5K	EK002-10K	EK002-10X
Trypsin	EK001-5K	EK001-10K	EK001-10X
Proteinase K	HK878-5K (50 Tests only)	NA	NA

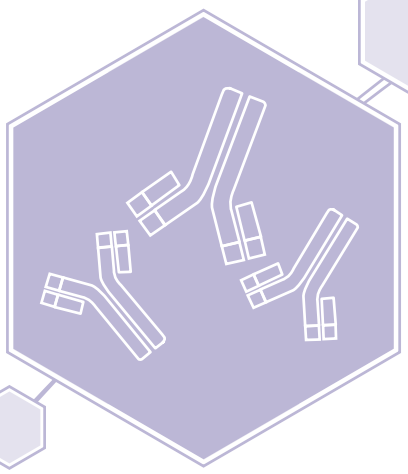
In barcode labeled Xmatrx® Elite/Vial
In i6000™/Xmatrx® Infinity Barcode tagged vial
In drop bottles

NordicWare® Microwave Tender Cooker

Placing the NordicWare® Microwave Tender Cooker[a] within a microwave is an effective method for enhancing staining with the Antigen Retrieval technique. The heat produced under enhanced pressure can reduce the build up of gas bubbles on the surface of tissues. This improves the intensity of staining, accompanied by preservation of tissue and cell morphology. This pressure cooker is also optimized for use with various BioGenex Antigen Retrieval solutions.

Product Name	Pack Size	Cat. No.
NordicWare® Microwave Tender Cooker	1 Unit	NW001-PC

For Laboratory Use only
NordicWare® is a registered trademark of NordicWare Corp.
Note: The reagents in this section are for Laboratory use only



Primary Antibodies

Primary Antibodies

BioGenex antibodies are optimized to provide maximum signal with minimum background when used for immunohistochemical staining.

Format

Ready-to-Use antibodies are fully optimized for use with BioGenex detection systems without the need for further dilution or titration. Ready-to-Use, Super Sensitive™ antibodies are fully quality controlled. These antibodies are recommended for use with all Super Sensitive™ Detection Systems to provide optimum staining. The ready-to-use antibody formats are indicated by catalog numbers prefixed with AC (Antibody Cocktails), AM (Mouse Monoclonal Antibodies), AN (Rabbit Monoclonal Antibodies), AR (Polyclonal Antibodies), AY & AX (Monoclonal Antibodies for Xmatrx®), AW (Polyclonal Antibodies for Xmatrx®).

Concentrated antibodies are provided with recommended dilutions for optimal use with BioGenex detection systems, allowing rapid titration and testing. These provide a more economical alternative for laboratories doing high volume immunostaining. The concentrated antibody formats are indicated by catalog numbers prefixed with MU (Mouse Monoclonal Antibodies), NU (Rabbit Monoclonal Antibodies) and PU (Polyclonal Antibodies).

All BioGenex concentrated antibodies are thoroughly tested for immunostaining applications and come with recommended dilutions for use with BioGenex detection systems. For specific information on individual antibody titers, please call BioGenex Technical Support at 1(800)421-4149 or write to: support@biogenex.com.

Pack Size

Unless otherwise specified, the following table lists the pack size for the available formats of antibodies:

Description	Pack Size	Order information in Cat. No.
Ready-to-Use (Manual)	6 ml	-5M and -5R
Ready-to-Use (*i*6000™)	10 ml	-10M and 10R
Ready-to-Use (Xmatrx® Elite/Ultra) barcode labeled	16 ml (200 tests) and 5 ml (50 tests)	-YCD and 50D
Concentrated	1 ml and 0.5 ml	-UC and UP or 5UC and 5UP

Tissue Type

Unless otherwise noted, all primary antibodies are optimized for use on routine formalin-fixed paraffin-embedded human tissue.

Optimization

All BioGenex primary antibodies are quality controlled and tested to provide optimum immunohistochemical staining when used with the appropriate BioGenex detection system. The correct optimization of antibody and detection system minimizes the potential for false negative or false positive staining.

Recommended Pre-treatment

The recommended pre-treatment for each antibody is provided under each description of the antibody.

BioGenex offers EZ-Retriever® System for Dewaxing, Rehydration and Antigen Retrieval, that streamlines and simplifies tissue pre-treatment. For more details on the system please refer to Automated Systems section.

We recommend that you refer to the datasheet (i.e. package insert) provided with the antibodies for up-to-date information on the pre-treatment conditions or please contact BioGenex Technical Support at 1(800)421-4149 or write to: support@biogenex.com.

Positive Tissue Control Slides And Microchamber Slides

BioGenex provides positive tissue control for use with the antibodies. The appropriate catalog number for the positive control slides with and without barrier are provided. For further details, refer to the Tissue Control section.

Antibody Look-Up Table

The table titled as “Antibody Look-Up Table” in the beginning of this section provides comprehensive information on all BioGenex primary antibodies along with positive controls.

IVD Products

Unless specified otherwise, all Primary Antibodies listed in this Section are for *In Vitro* Diagnostic Use.

Antibody Look-up Table

Antibody	Clone (Species)*	Localization	Positive Control	Regulatory Classification	SKU Family
ABCC3	Polyclonal(R)	Mem	Colon Ca	IVD	AR800
Alpha-Tubulin	DM-1A	Cyt	Lung	IVD	AM121
Androgen Receptor	F39.4.1	Nuc&Cyt	Prostate Hyper	IVD	AM256E
ALK/p80	SP8	Nuc&Cyt	Adeno Ca	IVD	AN770
ALK	SP144	Mem/Cyt	Lymphoma	IVD	AMB41
ATRX	D-7	Nuc	Breast Ca	IVD	AMB05
ARID1A	PSG3	Nuc & Cyt	Cervix	IVD	AMC51
Adenovirus	A62020069P	Nuc	Bion Slide	IVD	AM059E
Actin, Smooth Muscle	1A4	Cyt	Stomach	IVD	AM128
Alpha-1-Antichymotrypsin	β1A88	Cyt	Liver Ca	IVD	AM388
Alpha-1-Antitrypsin	Polyclonal	Cyt	Transitional cell Ca	IVD	ANC33
Alpha-Actinin	Alpha-Actinin	Cyt	Muscle	IVD	AM097
Actin, Muscle-Specific	HHF35	Cyt	Muscle	IVD	AM090
ACTH	AH26	Cyt	Pituitary	IVD	AM487
Alpha-Fetoprotein (AFP)	C3	Cyt	Hepatocellular Ca	IVD	AM008
ALK/p80	SP8	Cyt & Nuc	Adeno Ca	IVD	AN770
Actin, Muscle Specific	SPM160	Cyt	Muscle	IVD	AMA48
	AACT/1451	Cyt	Pancreas	IVD	AMC09
ACE 2	ACE2/6788R	Mem	Appendix	IVD	ANC18
ACTH	O2A3	Cyt	Colon Ca	IVD	AMD55
Adipophilin	ADFP/1494	Cyt	Liver	IVD	AMA76
ALK/CD246	ALK/1031	Cyt & Nuc	Lymphoma	IVD	AMB41
Alpha-1-Antitrypsin	AAT/3167R	Cyt	Transitional cell Ca	IVD	ANC33
Serum Amyloid P	APCS/3240	Cyt	Liver	IVD	AMA68
Annexin A1	ANXA1/3566	Nuc, Cyt & Mem	Testis	IVD	AMC69
Annexin VII	A-1	Mem, Cyt & Nuc	Testis	IVD	AMC46
Arginase 1	C-2	Nuc & Cyt	Hepatocellular Ca	IVD	AMB81
ARGINASE 1	ARG1/1126	Cyt	Hepatocellular Ca	IVD	AMC21
Aurora B	AURKB/1521	Nuc	Colon Ca	IVD	AMD18
Bax Protein	Polyclonal	Cyt	Breast Ca	IVD	AR347
BAP1	BAP1/8959R	Nuc	BAP1	IVD	AND45
B Lymphocyte Antigen 36 (BLA.36)	A27-42	Mem	Hodgkin	IVD	AM231
Beta-Tubulin III	SDL3D10	Cyt	Heart	IVD	AM177
Bcl-2	EP36	Cyt	Breast Ca	IVD	AN723
Bcl-2 Oncoprotein	bcl-2/100	Cyt	Tonsil	IVD	AM287
Bcl-2 Alpha	SP66	Mem	Tonsil	IVD	AN758
Bcl-6	LN22	Nuc	Tonsil	RUO	AM708
BCR-ABL	7C6	Nuc	Liver Ca	IVD	AM903E
Bcl-x	EP94	Cyt	Tonsil	IVD	AN819
BRAF (V600E)	V600E/1321	Cyt	Colon Ca	IVD	AMD49
CA 125	Ov185:1	Mem	Ovary Ca	IVD	AM429

Antibody	Clone (Species)*	Localization	Positive Control	Regulatory Classification	SKU Family
Beta Catenin	EP35	Nuc & Cyt	Breast	IVD	AN778
Beta-Tubulin	DM-1B	Cyt	Lung	IVD	AM122
B Cell	MB2	Cyt	Tonsil	IVD	AM158
Blood Group Antigen Lewis B	2-25LE	Cyt & Mem	Stomach	IVD	AM304
BOB-1	SP92	Cell Membrane	Tonsil	IVD	AM957
Beta-Tubulin II	JDR3B8	Cyt	Colon	IVD	AM176
Beta-Tubulin	DM-1B	Cyt	Lung	IVD	AM122
Bcl-x	EP94	Mem	Tonsil	IVD	AN819
BRCA1 Protein	Polyclonal	Nuc & Cyt	Breast Ca	IVD	AR345
Beta-catenin	Polyclonal	Cyt & Nuc	Human colon	IVD	ARA17
Breast Carcinoma Antigen BCA-225	CU18	Cyt	Breast Carcinoma	IVD	AM968
BOB-1	TG14	Nuc & Cyt	Tonsil	IVD	AMB59
Brachyury	A-4	Nuc	Tonsil	IVD	AMC14
Beta Catenin	EP35	Nuc & Cyt	Breast	IVD	AN778
Bcl-6	LN22	Nuc	Tonsil	IVD	AM708
BCR-ABL	7C6	Nuc	Liver Ca	IVD	AM903E
B Cell	MB2	Cyt	Tonsil	IVD	AM158
Bcl-2 Oncoprotein	bcl-2/100	Cyt	Tonsil	IVD	AM287
Bcl-2	EP36	Cyt	Breast Ca	IVD	AN723
BrdU	BU20a	Nuc	Intestine	IVD	AMC41
BrdU	BRD494	Nuc	Intestine	IVD	AMC48
Brg-1	G-7	Nuc	Breast	IVD	AMB49
CD47	CD47/3019	Mem	Ovarian Ca	IVD	AMD19
Carcinoembryonic Antigen (CEA)	B01-94-11M-P	Cyt	Colon Ca	IVD	AM009
Carcinoembryonic Antigen (CEA)	CEA88	Cyt	Colon Ca	IVD	AR365
CA19-9	C241:5:1:4	Cyt	Colon Ca	IVD	AM424
CD20	MS4A1/3409	Mem	Tonsil ca	IVD	AMA53
CD21	RM372	Mem	Tonsil	IVD	ANA18
CD56	128A8	Mem	Cerebellum	IVD	AMA06
CD8a	C8/468	Mem	Tonsil	IVD	AM929E
Chromogranin A	CGA/413+CHGA CHGA/777+ CHGA/798	Cyt	Pancreas	IVD	AMA51
COX2	COX2/3320R	Cyt & Mem	Colon	IVD	ANA32
Cyclin D1	E3P5S	Nuc	Breast Ca	IVD	ANA20
CA 125 (Ovarian Tumor Marker)	Ov185:1	Mem & Cyt	Ovary Ca	IVD	AM429
Cyclin D3	DCS22	Nuc	lung	IVD	AMA16
Cytokeratin 18	IHC018	Cyt	BREAST CA	IVD	AMA19
Calcitonin	SP17	Cell Mem	Thyroid	IVD	AN926
CA-IX	H-11	Mem	GIST	IVD	AMC19
Cytokeratin PAN	AE-1/AE-3	Cyt	Squamous	IVD	AMA46
Caspase-3	31A1067	Cyt	Liver	IVD	AMB42
Cathepsin K	CTSK/2791	Cyt	Breast Carcinoma	IVD	AMC13
CD235a	GYPA/280	Mem	Placenta	IVD	AMA91

Antibody	Clone (Species)*	Localization	Positive Control	Regulatory Classification	SKU Family
Cathepsin K	CTSK/2791	Cyt	Breast Carcinoma	IVD	AMC13
CD235a	GYPA/280	Mem	Placenta	IVD	AMA91
CD123	IL3RA/1531	Mem & Cyt	Lymph Node	IVD	AMA72
CD133	PROM/6316	Mem & Cyt	Squamous Carcinoma	IVD	AMC99
CD137	BBK-2	Mem	Tonsil	IVD	AMB03
CD147	BSG/963	Mem	Kidney	IVD	AMA97
CD162	PSGL1/1601	Mem	Squamous Carcinoma	IVD	AMC67
CD171/NCAM-L1	SPM275	Mem	Lymph Node	IVD	AMD01
CD269	BCMA/2366	Mem	Colon	IVD	AMC63
CD31	JC/70A	Mem	Tonsil	IVD	AMC30
CD4	rCD4/3930	Mem	Colon	IVD	AMB99
CD57	NK/804	Mem	Tonsil	IVD	AMB56
CD64	C-6	Mem & Cyt	Pancreas	IVD	AMA56
CEACAM1	E-1	Cyt	Colon Adenocarcinoma	IVD	AMC87
CD95	FAS/3112	Mem	Colon	IVD	AMC66
CDK4	DCS-35	Nuc & Cyt	Bladder	IVD	AMB80
Clusterin	A-9	Mem & Cyt	Tonsil	IVD	AMB33
Claudin-4	A-12	Mem & Cyt	Appendix	IVD	AMB08
CD79a	IGA/515	Mem	Appendicitis	IVD	AMC61
c-Myc	EP121	Nuc	Intestinal Adenocarcinoma	IVD	ANC25
COX2	COX2/3320R	Cyt & Mem	Colon	IVD	ANA32
CPA1	CPA1/2712	Cyt & Sec	Pancreas	IVD	AMC55
CTLA-4	F-8	Mem & Cyt	Heart	IVD	AMC20
Calcitonin	SP17	Cell Mem	Thyroid	IVD	AN926
Caldesmon, High MW, Smooth Muscle	h-CD	Cyt	Leiomyoma	IVD	AM332
Cyclin B1	CCNB1/1098	Nuc & Cyt	Testis	IVD	AMC32
Cytokeratin	CAM 5.2	Cyt	Breast Carcinoma	IVD	AMB50
Calponin	CALP	Cyt	Breast Ca	IVD	AM333
Calponin-1	EP63	Cyt	Pleomorphic Adenoma	IVD	AN821
Calretinin	2.00E+07	Cyt	Cerebellum	IVD	AM583
Calretinin	Polyclonal	Cyt	Cerebrum, Cortex	IVD	AR413
Catenin Delta 1 (p120)	Polyclonal	Mem & Cyt	Breast Ca	IVD	AR706
Calretinin	Polyclonal	Cyt	Cerebrum, Cortex	IVD	AR413
Carcinoembryonic Antigen (CEA)	Polyclonal	Cyt	Colon Ca	IVD	AR009
CD35	To5	Cyt	Lung	IVD	AMA78
CD2	AB75	Mem	Lymphoma	IVD	AM438
CD3	EP41	Mem	Lymphoma	IVD	AN846
CD3e	C3e/1931	Cell Mem	Lymph Node & Tonsil	IVD	AM931E
CD4	4B12	Mem	Tonsil	IVD	AM421
CD5	4C7	Mem	Tonsil	IVD	AM430
CD5	EP77	Mem	Tonsil	IVD	AN824
CD10	56C6	Mem	Kidney	IVD	AM451

Antibody	Clone (Species)*	Localization	Positive Control	Regulatory Classification	SKU Family
CD7	SP94	Mem	Tonsil	IVD	AN761
CD7	LP15	Mem	Tonsil	IVD	AM702
CD8	SP16	Mem	Tonsil	IVD	AN740
CD21	SP186	Mem	Tonsil	IVD	AN745E
CD20	CD20/C23	Mem	Spleen	IVD	AM537
CD11b/ITAM	EP45	Mem	Spleen	IVD	AN851
CD11c	EP157	Mem	Tonsil	IVD	AN822
CD14	EP128	Mem & Cyt	Tonsil	IVD	AN814
CD15 (Blood Group Antigen Lewis X)	BRA4F1	Mem & Cyt	Hodgkin	IVD	AM302
CD16a	SP189	Mem	Tonsil/Lung	IVD	AN749
CD16a	SP175	Cyt & cell-cell junctions	Tonsil	IVD	AN762
CD16	2H7	Mem & Cyt	Lymph Node	IVD	AM437
CD19	EP169	Mem	Tonsil	IVD	AN729
CD20 (B Cell)	L-26	Mem	Tonsil	IVD	AM238
CD21	EP64	Mem	Tonsil	IVD	AN825
CD20/MS4A1	IGEL/773	Cell Mem	Tonsil	IVD	AM947
CD23	Polyclonal	Mem	Lymph Node	IVD	AR460
CD27	Polyclonal	Cell Mem	Tonsil	IVD	AR912E
CD30	EPR4102	Nuc	Hodgkins Lymphoma	IVD	AN955
CNPase (Myelin)	SMI 91(M)	Cell Mem	Brain	IVD	AM959E
CD30 (Ki-1 Antigen)	Ber-H2	Mem & Cyt	Hodgkin	IVD	AM327
CD223	D-8	Mem	Tonsil	IVD	AMD50
CD31 (Endothelial Cell)	JC/70A	Mem & Cyt	Colon Ca	IVD	AM232
CD31 (PECAM-1)	9G11	Mem & Cyt	Tonsil	IVD	AM241
CD34 (Endothelial Cell)	QBEnd/10	Mem	Colon Ca	IVD	AM236
CD35	SP191	Mem	Tonsil	IVD	AN741E
CD35	RLB25	Mem	Tonsil	IVD	AM431
CD38	SP149	Mem & Cyt	Tonsil	IVD	AN769
CD40	CL1673	Cell Mem	Tonsil	IVD	AM913E
CD41/Integrin Alpha IIb	EP178	Mem & Cyt	Spleen Ca	IVD	AN732E
CD43	SP55	Mem	Tonsil	IVD	AN748
CD43 (T Cell, Leukosialin)	DFT-1	Mem	Tonsil	IVD	AM305
CD44 (Phagocytic Glycoprotein-1, HCAM)	DF1485	Mem	Tonsil	IVD	AM310
CD45 (Leukocyte Common Antigen, LCA)	PD7/26/16 & 2B11	Mem	Tonsil	IVD	AM111
CD45 (Leukocyte Common Antigen, LCA)	MEM55+LJ27.9	Mem & Cyt	Tonsil	IVD	AM371
CD45 Cocktail (Leukocyte Common Antigen, LCA)	MEM55+LJ 27.9	Mem	Tonsil	IVD	AM371
CK7/18	KRT7.18/8899	Cyt	Benign Prostate Hyperplasia	IVD	AMD52
CD45RC (T Cell)	MT2	Mem	Tonsil	IVD	AM156
CD45RO (T Cell)	UCHL-1	Mem & Cyt	Tonsil	IVD	AM113
CD48	EP148	Mem	Tonsil	IVD	AN721E
CD53	EP179	Mem	Tonsil	IVD	AN734
CD57 (Natural Killer Cell)	NK-1	Mem & Cyt	Tonsil	IVD	AM314

Antibody	Clone (Species)*	Localization	Positive Control	Regulatory Classification	SKU Family
CD61/Integrin β3	ITGB3/2145	Cell Mem	Rcc, Spleen	IVD	AM942E
CD63	EP211	Mem & Cyt	Prostate/Melanoma	IVD	AN720E
CD66	BY114	Mem	Tonsil	IVD	AM325
CD68	KP1	Cyt	Lymph Node	IVD	AM416
CD68	CD68/G2	Cyt	Histiocytoma	IVD	AM549
CD73	1D7	Cell Mem	Tonsil	IVD	AM904E
CD74 (B Cell)	LN2	Mem & Cyt	Tonsil	IVD	AM153
C-myc	MYC/7854R	Nuc	Colon	IVD	AND22
CD79a	SP18	Mem	Tonsil	IVD	AN767
CD79a	EP82	Mem & Cyt	Lymph Node	IVD	AN719
CD82	EP160	Mem	Adeno Ca	IVD	AN757
CD2	LFA2/7106	Mem	Lymph Node	IVD	AMD29
CD95	EP208	Cyt & Mem	Tonsil	IVD	AN742E
CD99	EP8	Mem	Ewing?S Sarcoma	IVD	AN850
CDK2	SP80	Cyt	Tonsil	IVD	AN906E
CDK9	K.513.1	Nuc	Ca. Cervix	IVD	AN908E
CD117	T595	Mem & Cyt	Stomach	IVD	AM423
CD117/c-Kit/SCF	Polyclonal	Mem & Cyt	Gist	IVD	AR759
CD138	EP201	Nuc	Tonsil	IVD	AN837
CD146	EP54	Mem & Cyt	Placenta	IVD	AN716
CD227 (Mucin 1)	VU-4H5	Cyt	Mucinous Adeno Ca	IVD	AM534
CDX-2	CDX2-88	Nuc	Colon	IVD	AM392
c-Kit/CD117	EP10	Mem & cyt	Stomach	IVD	AN818E
c-erbB-2	SP3	Mem & Cyt	Breast Ca	IVD	AN753E
c-erbB-2 (HER-2/neu)	CB11	Mem & Cyt	Breast Ca	IVD	AM134E
c-erbB-3 (HER-3)	RTJ1/A2	Mem	Breast Ca	IVD	AM319
Chromogranin A	LK2H10	Cyt	Pancreas	IVD	AM126
c-erbB-2 (HER-2/neu)	EP3	Mem & Cyt	Breast Ca	RUO	AN726E
Chromogranin A	PHE-5	Cyt	Pancreas	IVD	AM356
c-Jun	4H9	Cell Mem	Stomach gland	IVD	AM958
Claudin-5	EP224	Cell jun & Mem	Lung Squamous Ca	IVD	AN718
CNPase (Myelin)	SMI 91	Cell Mem	Brain Tissue	IVD	AM959
Collagen IV	COL-94	Basal Laminae/ Cyt	Skin	IVD	AM379
Collagen III	HWD1.1	ECM	Skin	IVD	AM167
Cyclin D1	EP12	Nuc & Cyt	Breast Ca	IVD	AN815
Cyclin E1	EP126	Nuc	Placenta	IVD	AN854
Cytokeratin 4	EP4	Cyt	Esophagus	IVD	AN717
Cytokeratin 5	rKRT5/6398	Cyt	Skin	IVD	AMD38
Cytokeratin 5	EP42	Cyt	Mesothelioma	IVD	AN847
Cytokeratin 5 & 6	EP24 & EP67	Cyt	Cervical Carcinoma	IVD	AN892
Cytokeratin 5 + Cytokeratin 14	EP24 + EP61	Cytoplasm	Prostate	IVD	AN730E
Cytokeratin 6	EP67	Cyt	Cervical	IVD	AN845
Cytokeratin 7	KRT7/760	Cell Mem	Pancreas, Endometrium	IVD	AM944

Please check the data sheet for pre-treatment and protocol information. Unless specified otherwise, all primary antibodies listed in this table are for FFPE tissue specimens
* M: Mouse; R:Rabbit

Antibody	Clone (Species)*	Localization	Positive Control	Regulatory Classification	SKU Family
Cytokeratin 7	OV-TL12/30	Cyt	Breast Ca	IVD	AM255
Cytokeratin 7 & 8	OV-TL12/30 & C51	Cyt	Breast Ca	IVD	AM587
Cytokeratin 8	C51	Cyt	Breast Ca	IVD	AM142
Cytokeratins 8 & 18	5D3	Cyt	Colon Ca	IVD	AM131
Cytokeratin 10	DEK-10	Cyt	Skin	IVD	AM201
Cytokeratin 14	LL002	Cyt	Squamous Cell Ca	IVD	AM146
Cytokeratin 14	EP61	Cyt	Prostate	IVD	AN831
Cytokeratin 15	EP14	Cyt	Squamous	IVD	AN855
Cytokeratin 16	KRT16/2043R	Cell Mem	Tonsil, Skin, & Esophageal	IVD	AN933
Cytokeratin 18	DC-10	Cyt	Breast Ca	IVD	AM143
Cytokeratin 19	RCK108	Cyt	Colon Ca	IVD	AM246
Cytokeratin 20	KRT20/1992	Cell Mem	Colon tissue	IVD	AM946
Cytokeratin 20	IT-Ks20.8	Cyt	Colon Ca	IVD	AM315
Cytokeratin 20	EP23	Cyt	Colon Ca	IVD	AN849
Cytokeratin Cocktail	AE1 and AE3	Cyt	Skin	IVD	AM071
Cytokeratin Cocktail, Broad Spectrum	34βE12/C51/AE1	Cyt	Skin, Breast Ca	IVD	AM273
Cytokeratin Cocktail, Broad Spectrum	LL002+DEK-10+RCK108+OVTL12/30+C11	Cyt	Breast Ca	IVD	AM372
Cytokeratin, High MW	34βE12	Cyt	Prostate	IVD	AM291
Cytokeratin, High MW (Basic)	AE3	Cyt	Skin	IVD	AM071
Cytokeratin, Low MW	AE1	Cyt	Skin	IVD	AM071
Cytokeratin, Pan	Lu-5	Cyt	Colon Ca	IVD	AM181
Cytomegalovirus (CMV)	BM204	Nuc	Cmv Inf. Lung	IVD	AM254
CD103	EP206	Mem	Colon Ca	IVD	AN739E
CDK1	A17.1.1	Cyt	Tonsil	IVD	AM905E
CD45	2B11 & PD7/26	Cell Mem	Tonsil	IVD	AM941
CDX2	CDX2/1690	Nuc	GIST	IVD	AM923
CD10	MME/6461	Mem & Cyt	Kidney	IVD	AMD39
C4d	C4D204	Cyt	Rejected Renal Transplant	IVD	AMD60
C4D	SPM545	Cyt	Tonsil	IVD	AMD36
Caspase-3 p17	B-4	Cyt	Stomach	IVD	AMD30
dsDNA	121-3	Nuc	Prostate And Thyroid Carcinoma	IVD	AM934
Desmoglein-3	DSG3/2839	Mem	Lung tissue	IVD	AMA77
DOG1	1.1	Cyt & Mem	Gist	IVD	AM570
Desmin	D33	Cyt	Leiomyma	IVD	AM072
Dystrophin	Dys2 (Dy8/6C5)	Mem	Muscle	IVD	AM244
Estrogen Receptor (InSite® ER)	ER88	Nuc	Breast Ca	IVD	AM368E
Estrogen Receptor	EP1	Nuc	Breast Ca	IVD	AN710E
Epithelial Membrane Antigen (EMA)	Mc5	Mem & Cyt	Breast Ca	IVD	AM182
EGFR	Polyclonal	Mem & Cyt	Squamous Ca	IVD	AR335E
Epithelial Membrane Antigen (EMA)	E29	Mem & Cyt	Lung	IVD	AM057
Estradiol	Polyclonal	Nuc	Breast Ca	IVD	AR038

Antibody	Clone (Species)*	Localization	Positive Control	Regulatory Classification	SKU Family
EGFR	GFR/2596	Mem	Transitional Cell Carcinoma Tissue	IVD	AMC68
Estrogen Receptor α	ESR1/1935	Cell Mem	Lung Carcinoma, Tonsil	IVD	AM924E
E-Cadherin	EP6	Basement Mem	Breast Ca	IVD	AN725
Luteinizing Hormone (LH)	SP132(R)	Mem	Pituitary	IVD	AN787
ERG	EP111	Nuc	Prostate	IVD	AN782
E-Cadherin	EP6	Mem	Breast Ca	IVD	AN725
Epithelial Specific Antigen	MOC-31	Mem	Colon Ca	IVD	AM316
E-Cadherin	36	Mem	Colon Ca	IVD	AM390
EGFR	EP22	Nuc & Cyt	Lung Squamous Ca	IVD	AN781E
Ep-CAM	EP155	Mem	Adenoma	IVD	AN820
Epstein-Barr Virus (EBV) Early Antigen	1108-1	Nuc & Cyt	EBV infected cells/ tissues	IVD	AM222E
Fascin	FCN01	Cyt	Lymph Node	IVD	AM488
Factor XIIIa	F13A1/1683	Cyt	Stomach Tissue	IVD	AMC40
FOXP1	FOXP1/44R	Nuc	Prostate tissue	IVD	ANC89
Factor XIII Subunit A	E980.1	Cyt	Placenta	IVD	AM337
Fibronectin	EP5	Ext matrix & Cyt	Liver Tissue	IVD	AMC60
Ferritin Light Chain	FTL/1389	Cell Mem	Lung Carcinoma, Tonsil	IVD	AM935E
Filaggrin	FLG/1562	Cyt	Skin tissue	IVD	AMB37
Factor XIIIa	AC-1A1	Cyt	Placenta tissue	IVD	AMA11
GATA-3	HG3-31	Nuc	Breast Carcinoma	IVD	AMB43
Gastrin	GAST/2634	extracellular/ secreted	Stomach	IVD	AMD34
Glut-1	SPM498	Mem & Cyt	Squamous Ca	IVD	AM505
GCDFP-15	PIP/1571	Cell Mem	Breast, Salivary Gland	IVD	AM953
Glycophorin A	JC159	Mem	Salivary gland tissue	IVD	AMB36
Glutathione S-Transferase Pi (GST Pi)	Polyclonal	Nuc & Cyt	Breast	IVD	AR249
Glypican-3 (GPC3)	GPC3-88	Cyt & Mem	Hepatocellular Ca	IVD	AM539
Glycophorin A+B (E3)	E3	Mem	Placenta	IVD	AM889
Granulocyte	BM-2	Cyt	Hodgkin	IVD	AM210
GITR	Polyclonal	Cell Mem	Tonsil/Spleen	IVD	AR915E
GFAP	EP13	Cyt	Cerebellum	IVD	AN783
Glial Fibrillary Acidic Protein (GFAP)	GA-5	Cyt	Cerebellum	IVD	AM020
GCDFP-15	PIP/1571	Cell Mem	Breast, Salivary Gland	IVD	AM953
Gastrin	Polyclonal	Cyt	Stomach	IVD	AR019
GCDFP-15	EP95	Cyt	Breast Ca	IVD	AN856
Growth Hormone	GH/1450	Cell Mem	Pituitary	RUO	AM925E
GLUT 1	GLUT1/3132R	Mem	Tongue Squamous cell carcinoma	IVD	ANC91
Glucagon	C-11	Cyt	Pancreas	IVD	AMD35
Granzyme B	2C5	Mem & Cyt	Spleen tissue	IVD	AMB35
GM-CSF	CSF2/3403	Ext & Cyt	Tonsil	IVD	AMC56
GATA-3	GATA3/6664	Nuc	Breast Carcinoma	IVD	AMB89
Galectin-3	B2C10	Nuc & Cyt	GIST	IVD	AMB39
Glutamine Synthetase	E-4	Cyt	Testis	IVD	AMB64

Antibody	Clone (Species)*	Localization	Positive Control	Regulatory Classification	SKU Family
GCDFP-15	EP95	Cytoplasm	Breast Ca	IVD	AN856
Histone H3	PHH3/471R	Nuc	Tonsil Tissue	IVD	ANB88
Heat Shock Protein 27 (HSP 27)	G3.1	Cyt	Breast Ca	RUO	AM171
HLA-DR/DP/DQ/DX	CR3/43	Mem & Cyt	Lymph Node	RUO	AMB53
Helicobacter pylori	HPYL/7172	Cyt/H.pylori	Helicobacter pylori infected stomach, Stomach	IVD	AMD16E
Heat Shock Protein (HSP-70)	BRM-22	Cytoplasm	Breast Ca	IVD	AM289
HCGα	HCGα/53	Cell Mem	Placenta	IVD	AM930E
H. Pylori	HPYL/7172	Cytoplasm	Stomach	IVD	AMD16
HLA-DP/-DR	Bra-14	Mem	Lymphnode	IVD	AMD48
Hepatitis B Virus Core Antigen (HBcAg)	Polyclonal	Cyt	Hepatitis	IVD	AR082E
Herpes Simplex Virus Type I (HSV I)	Polyclonal	Nuc	Hsv Inf. Culture	IVD	AR084E
Herpes Simplex Virus Type II (HSV II)	Polyclonal	Mem	Hsv Inf. Culture	IVD	AR085E
Human Chorionic Gonadotropin (hCG) Beta	M94138	Cyt	Placenta	IVD	AM395
Human FLI-1	MRQ-1	Nuc	Kidney	IVD	AMB24
Hepatocyte Specific Antigen	OCH1E5	Cyt	Liver	IVD	AMC47
HLA-DR	LN3	Mem	Tonsil	IVD	AM154E
Histone H3	1G1	Nuc	Prostate Carcinoma	IVD	AMB82
HSA	HSA/E8	Cyt	Liver	IVD	AM550
HIF-1-ALPHA	EP118	Nuc & Cyt	Breast Carcinoma	IVD	ANB27
HSV 1	10A3	Cyt &/OR Nuc	Cervical Ca	RUO	AMD51
Interleukin 6	10C12	Cyt	Colon	IVD	AMB60
IDO	4D2	Cyt	Tonsil/Spleen	IVD	AM916E
Interleukin-1beta	IL1B/3993	Cyt & Ext	Colon Carcinoma	IVD	AMC52
IgA	IA761	Mem & Cyt	Colon	IVD	AMA03
IgG	IgG88	Mem & Cyt	Tonsil	IVD	AM367
IDH1 R132H	MRQ-67	Cyt	Acute Myeloid leukemia	IVD	AND64
IDH1	IDH1/1152	Cyt & Nuc	Breast carcinoma	IVD	AMA22
IgD	Polyclonal	Mem & Cyt	Tonsil	IVD	AR440
IgM	IgM88	Mem & Cyt	Tonsil	IVD	AM366
IL-5	IL5/4161	extracellular / cytoplasmic	Stomach	IVD	AMD09
Inhibin Alpha	R1	Cyt	Ovary	IVD	AM446
Insulin	HB125	Cyt	Pancreas	IVD	AM029
Insulin	EP125	Cyt	Pancreas	IVD	AN735
IgG4	IGHG4/2042R	Cyt	Tonsil	IVD	ANB75
IL-15	IL15/7048R	Ext, Cyt & Nuc	Kidney	IVD	ANC97
IL-1a	IL1A/3981	Cyt & Mem	Colon	IVD	AMA98
IL-2	IL2/3949	Ext, Nuc & Cyt	Colon	IVD	AMC96
IL-3	IL3/4004	Ext, Cyt & Nuc	Adrenal Gland	IVD	AMC98
IgD	IgD26	Cyt	Lymphoid	IVD	AMD32
INI-1	A-5	Nuc	Renal cell carcinoma	IVD	AMB02
INI1/SNF5/SMARCB1	SMARCB1/3984	Nuc	Kidney	IVD	AMB97

Antibody	Clone (Species)*	Localization	Positive Control	Regulatory Classification	SKU Family
INSM1	A-8	Nuc	Pancreas	IVD	AMB44
INSM1	INSM1/6286R	Nuc	Neuroendocrine Tumor	IVD	ANC07
Interferon Alpha	IFNA/6689	Cyt	Neuroendocrine Tumor	IVD	AMC31
J-chain	SP105	perinuclear spaces and endoplasmic reticulum of the lymphocytes	Tonsil	IVD	AN756
J Chain	JC88	Cyt	Tonsil, Lymph Node	IVD	AM374
Ki-67	EP5	Nuc	Lymphoma, Lymph Node, Tonsil	IVD	AN727
Kappa Light Chain	L1C1	Cyt	Tonsil	IVD	AM048
Ki-67	K-2	Nuc	Tonsil	IVD	AM410
Ki-67 Antigen, Proliferating Cell	MIB-1	Nuc	Lymphoma, Lymph Node, Tonsil	IVD	AM297
KRAS	Polyclonal	Mem	Colon Ca	IVD	AW751
Ki-67 Antigen, Proliferating Cell	MIB-1	Nuc	Lymphoma, Lymph Node, Tonsil	IVD	AM297
Langerin	H-4	Mem & Cyt	Skin	IVD	AMB79
LEF1	EP310	Nuc	Hodgkins Lymphoma	IVD	ANB32
Lamin B1	A-11	Nuc	Tonsil	IVD	AMC35
LI Cadherin	CDH17/2615	Mem & Cyt	Stomach/Intestine	IVD	AMB96
Lambda Light Chain	EP172	Mem & Cyt	Tonsil	IVD	AN715
Lambda Light Chain	SP147	Cyt	Tonsil	IVD	AN763
Lysozyme	LYZ/3943	Cyt	Kidney	IVD	AMD31
Luteinizing Hormone	SP132	Cyt, Sur & Nuc	Pituitary	IVD	AN787
Lysozyme	Polyclonal	Cyt	Lymph Node	IVD	AR024
Lambda Light Chain	Polyclonal	Cyt	Tonsil	IVD	AR049
LAG3	Polyclonal	Cyt	Tonsil	IVD	AR917E
LI-cadherin/CDH17	CAEX3	Mem & Cyt	Colon	IVD	AMB06
EBV/LMP-1	CS1-4	Mem	Hodgkins Lymphoma	RUO	AMA66
Laminin Receptor	RPSA/2699	Nuc, Cyt & Mem	Breast Squamous Carcinoma	IVD	AMC29
MUC6	SPM598	Cyt	Stomach	IVD	AMC11
Myosin Heavy chain	MYH11/4337R	Cyt	Colon	IVD	ANC62
MYOD1	rMYD712	Nuc	Rhabdomyosarcoma	IVD	AMA21
Mesothelin (Mesothelial Marker)	MSLN/2131	Cyt	Ovarian Ca	IVD	AMA09
Mast Cell Tryptase	AA1	Cyt	Skin	IVD	AM419
MCM2	SP85	Nuc	Cervical Ca	IVD	AN773
Melan-A (MART-1)	A103	Cyt	Melanoma	IVD	AM361
Melanoma	HMB45	Cyt	Melanoma	IVD	AM001
MCM3	E-8	Nuc & Cyt	Placenta tissues	IVD	AMD24
Melanoma Associated Antigen	NKI/C3	Mem & Cyt	Melanoma	IVD	AM077
Mesothelin	5B2	Mem	Ovaryadenoma	IVD	AM433
MiTF	MiTF/A13	Nuc	Melanoma	IVD	AM554
Mitochondrial Antigen	113-1	Cyt	Liver	IVD	AM213
Mismatch Protein Repair (MLH1)	ES05	Nuc	Colon	IVD	AM703
Mucin 1 (MUC1)	EP85	Cyt	Breast	IVD	AN813
MCM2	EP40	Nuc	Tonsil	IVD	AN834

Antibody	Clone (Species)*	Localization	Positive Control	Regulatory Classification	SKU Family
MMP-9	EP127	Mem & Cyt	Bone Marrow	IVD	AN816
MSH2	SP46	Nuc	Colon Ca	IVD	AN743
MSH2	D-9	Nuc	Thyroid	IVD	AMA23
MUC4	1G8	Cyt	Colon Ca	IVD	AM455
MUC5AC	45M1	Cyt	Gastro-Intestine	IVD	AM456
Mucin 2 (MUC2)	CCP58	Cyt	Colon Ca	IVD	AM358
Multi-Drug Resistance Marker (P-Glycoprotein)	MDR88	Mem & Cyt	Adrenal Gland	IVD	AM391
Mum1/IRF4	SP114	Nuc	Hodgkins	IVD	AN750
Myeloperoxidase	MPO/7118	Cyt	Liver	IVD	AMD37
Myelin Basic Protein	MBP88	Cyt	Cerebellum	IVD	AM380
Myeloid Specific Antigen	BM-3	Cyt	Lymph Node	IVD	AM216
Myeloid Specific Antigen	BM-1	Cyt	Lymph Node	IVD	AM164
Myeloperoxidase (MPO)	Polyclonal	Cyt	Spleen	IVD	AR496
Myogenin	EP162	Nuc	Rhabdomyosarcoma	IVD	AN789
Myoglobin	MG-1	Cyt	Muscle	IVD	AM012
Myoglobin	Polyclonal	Cyt	Muscle	IVD	AR012
Myosin Heavy Chains, Smooth Muscle	SMMS.1	Cyt	Breast	IVD	AM331
Myosin, Skeletal Muscle	MY-32	Cyt	Muscle	IVD	AM109
Macrophage	LN5	Cyt	Liver	IVD	AM165
Mammaglobin	MGB/4811R	Cyt	Breast Carcinoma	IVD	ANC10
MCM7	SPM379	Nuc	Tonsil	IVD	AMC57
MDM2	D-7	c	Mouse	IVD	AMB04
Melanoma Marker	A103+T311+HMB45	Cyt	Melanoma	IVD	AMA69
Microglia/AIF1	AIF1/2493	Cyt & Mem	Tonsil	IVD	AMA70
MiTF	C5/D5	Nuc	Tonsil	IVD	AMA63
MLH-1	MLH1/6284R	Nuc	Colon	RUO	ANC24
MRP3	ABCC3/2971	Mem & Cyt	Pancreatic Ca	IVD	AMD53
MHC Class I	F-3	Mem	Liver tissue	IVD	AMD57
N-cadherin	5D5	Cell Mem	Heart	IVD	AM928
Napsin A	IP64	Cyt	Lung / Adeno Ca	IVD	AM701
Neurofilament	NE-14	Cyt	Nerve	IVD	AM073
Neuron Specific Enolase (NSE)	MIG-N3	Cyt	Nerve	IVD	AM055
NUT1	SNUPN/7363R	Nuc	Colon	IVD	AND27
Nucleophosmin	rNPM1/1901	Nuc & Cyt	Skin	IVD	AMD46
BOB-1	SP92	Mem	Tonsil	IVD	AN957E
CD205	EP176	Cyt & Mem	Tonsil	IVD	AN737E
CD23	SP23	Mem	Tonsil	IVD	AN988E
CEACAM1	Polyclonal	Mem & Cyt	COLON CA	IVD	AR909E
Estrogen Receptor beta 1	ERb455	Nuc	Breast Ca	IVD	AMB30E
Helicobacter pylori	ULC3R	H. pylori	Stomach	IVD	AM880E
PIN4 COCKTAIL (P504S + HMW CYTOKERATIN + P63)	13H4+ 34βE12+ 4A4	Nuc & Cyt	PROSTATE CA	IVD	AM448E

Antibody	Clone (Species)*	Localization	Positive Control	Regulatory Classification	SKU Family
NESTIN	NES/2911	Cyt & Mem	Kidney	IVD	AMA84
NKX2.2	D-4	Nuc	Prostate Carcinoma	IVD	AMC23
NeuN	NeuN/7071R	Nuc & Cyt	Brain	IVD	ANC08
NKx3.2	H-4	Nuc	Intestine	IVD	AMB92
Nucleophosmin	NPM1/3286	Nuc & Cyt	Skin	IVD	AMA47
Oct-4	EP143	Nuc	Testis	IVD	AN724
OCT-3/4	C-10	Nuc	Adrenal Gland	IVD	AMB84
OLIG2	OLIG2/7074R	Nuc & Cyt	Brain	IVD	ANC12
Oct-2	EP115	Nuc	Tonsil	IVD	AN830
PAX5	PAX5/3735	Nuc	Tonsil	IVD	AMA49
PGP9.5 / UcHL1	UCHL1/775	Cyt	Brain	IVD	AMA27
PERFORIN-1	PRF1/2470	Cyt	Spleen	IVD	AMA26
p16	IHC116	Mem & Cyt	Cervical Ca	IVD	AMA08
p21/WAF1	CIP1/4377R	Nuc	Cervical Ca	IVD	ANA13
p120	SP63	Mem & Cyt	Breast	IVD	AN760
PMS2	B-3	Nuc	Colon Ca	IVD	AMD62
p27 (Kip1)	DCS72	Nuc	Breast	IVD	AM396
p27/Kip1	EP104	Nuc	Breast	IVD	AN817
P504S (AMACR)	13H4	Cytoplasm	Prostate Ca	IVD	AN449E
P504S (AMACR)	RBT-AMACR	Cyt	Prostate Ca	IVD	AN538
p53	EP9	Nuc	Breast Ca	IVD	AN728
p53 Protein	BP53-12-1	Nuc	Breast Ca	IVD	AM195
p53 Protein	DO7	Nuc	Breast Ca	IVD	AM239
p53 Protein	1801	Nuc	Breast Ca	IVD	AM240
Paxillin	EP89	Cyt	Breast Ca	IVD	AN876
p63	4A4	Nuc	Prostate Hyper	IVD	AM418
PRAME	PRAME/8558R	Nuc	Pancreatic	IVD	AND41
PD-L1	IHC411	Cell Mem	Tonsil, Lung Adenocarcinoma	IVD	AN921
Papillomavirus Type 16 (HPV-16)	Cam Vir-1	Mem	Hpv Inf	IVD	AM362E
PD-1	IHC001	Cell Mem	Lung Carcinoma, Tonsil	RUO	AM922
PDCD4	EP102	Cyt & Nuc	Colon Ca	IVD	AN875
PDCD4	PAX3/4700	Nuc	Ovary	RUO	AMD28
Placental Alkaline Phosphatase (PLAP)	PL8-F6	Cyt	Placenta	IVD	AM228
Placental Lactogen (hPL)	Polyclonal	Cyt	Placenta	IVD	AR040
PMS2	EP51	Nuc	Colon Ca	IVD	AN844E
PMS2	PMS2/8224R	Nuc	Colon Ca	IVD	AND47
Podoplanin	D2-40	Cyt & Mem	Tonsil	IVD	AMD43
PRPS1/2/3	A-11	Cyt & Nuc	Testis	IVD	AMD63

Antibody	Clone (Species)*	Localization	Positive Control	Regulatory Classification	SKU Family
Progesterone Receptor	EP2	Nuc	Breast Ca	IVD	AN711E
Progesterone Receptor	PGR/6854R	Nuc	Breast Ca	IVD	AND06
Platelet-Derived Growth Factor (PDGF)	Polyclonal	Cyt	Squamous Ca	IVD	AR376
Progesterone Receptor (InSite® PR)	PR88	Nuc	Breast Ca	IVD	AM328E
Proliferating Cell Nuclear Antigen (PCNA)	PC10	Nuc	Colon Ca	IVD	AM252
Prostate Specific Acid Phosphatase (PSAP)	B01-94-21M-NA	Cyt	Prostate Hyper	IVD	AM013E
Prostate Specific Antigen (PSA)	ErPr-8	Cyt	Prostate Hyper	IVD	AM014
pS2 Estrogen Inducible Protein	PS2.1	Cyt	Breast Ca	IVD	AM190
PSMA	SP29	Mem	Prostate Ca	IVD	AN768
PSMA	EP192	Mem & Cyt	Prostate	IVD	AN714
P-Tyr	PY793	Cell Mem	Lung Carcinoma, Tonsil	IVD	AM938E
PU.1	EP18	Nuc	Lymphoma	IVD	AN843
p57/Kip2	KP39	Cyt	Heart	IVD	AMB94
Pancreatic Lipase	A-3	Cyt	Pancreas	IVD	AMC64
PAX2	PAX2/1105	Nuc	Ovarian cell carcinoma	IVD	AMC95
Podoplanin	PDPN/1433	Mem & Cyt	Uterus	IVD	AMB91
PAX8	PAX8/2774R	Nuc	Fallopian	IVD	ANB31
PAX-7	EE-8	Nuc	Intestine	IVD	AMB93
Podoplanin	PDPN/4009R	Mem	Tonsil	IVD	ANB95
Prostein	A-5	Cyt & Mem	Prostate	IVD	AMB54
PTEN	6H2.1	Mem & Cyt	Breast Ca	IVD	AMB26
Pygopus 2	B-12	Nuc & Cyt	Tonsil	IVD	AMC44
Progesterone Receptor	PGR/6854R	Nuc	Breast Ca	IVD	AND06
PAX-5	24/Pax-5	Cell Mem	Breast, Salivary Gland	IVD	AM967
Progesterone Receptor	1A6	Nuc	Breast Ca	IVD	AM172E
Renal Cell Carcinoma (RCC)	RCC-26	Cyt	Renal Cell Carcinoma	IVD	AM543
R1	A-10	Cyt & Mem	Tonsil Tissue	IVD	AMC49
Retinoblastoma	13A10	Nuc	Tonsil	IVD	AMB61
RRM1	RRM1/4372R	Cyt	Colon Carcinoma	IVD	ANC43
Smoothelin	C-8	Mem & Cyt	Prostate	IVD	AMB40
SOX2	SOX2/1791	Nuc	Lung Squamous Carcinoma	IVD	AMA24
SLUG	A-7	Nuc	Breast	IVD	AMD64
SPARC / Osteonectin	ON1-1	Cyt	Testisas	IVD	AMA28
Synaptophysin	SYP/3551	Cyt	Pancreas	IVD	AMA50
SDHB	SDHB/6697R	Cyt	Heart Tissue	IVD	ANB86
SOX9	SOX9/2387	Nuc	Salivary Gland	RUO	AMB90
SPEC1	RBC2/3D5	Mem	Renal Cell Carcinoma	IVD	AMB62
SSTR2	A-8	Cyt	Brain	IVD	AMC38
STAT-3	STAT3/2409	Nuc & Cyt	Kidney	IVD	AMA87
STAT-6	EP325	Nuc	Appendix	IVD	ANB83
SALL4	6E3	Nuc	Testis	IVD	AMB18
SV40 T Ag	Pab 101	Nuc	Colon	IVD	AMB74
SATB2	rSATB2/6929	Nuc	Colon Ca	IVD	AMD25
Steroidogenic Factor 1	NR5A1/3397	Nuc	Adrenal cortical ca	IVD	AMD02

Antibody	Clone (Species)*	Localization	Positive Control	Regulatory Classification	SKU Family
SFTPD	SFTPD/7084R	Extracellular	Bladder	IVD	AND05
SLAMF7	SLAMF7/3649	Mem	Tonsil	RUO	AMD33
STAT6	D-1	Cyt & Nuc	Appendix	IVD	AMB34
Synaptophysin	SYP/3551	Cyt	Pancreas	IVD	AMA50
S100-β	EP32	Cyt	Melanoma	IVD	AN713
S100 Protein	Polyclonal	Cyt & Nuc	Melanoma	IVD	AR991
SMAD4	rSMAD4/6310	Nuc & Cyt	Melanoma	IVD	AMD23
Secretin	Polyclonal	Cyt	Stomach	IVD	AR067
SLAMF7	Polyclonal	Cell Mem	Tonsil	IVD	AR920E
SOX2	EP103	Nuc	Squamous	IVD	AN833
SOX2	Polyclonal	Nuc	Uterus Cervix	IVD	AR788
SOX11	SOX11/7236	Nuc	Lymph Node	IVD	AMD15
STAT5 alpha	6D4	Cell Mem	Placenta, Breast	IVD	AM972
Substance P	Polyclonal	Cyt	Hypothalamus	IVD	AR069
Survivin	EP119	Nuc & Cyt	Bladder	IVD	AN826
Synaptophysin	EP158	Cyt	Pancreas	IVD	AN857
Serum Amyloid A	SAA/326	Cyt	Liver	IVD	AMC42
SDHB	SDHB/2382	Cyt	Liver	IVD	AMA99
TTF-1	NX2.1/690	Nuc	Lung carcinoma	IVD	AMA25
TFE3	EP285	Nuc & Cyt	Renal cell carcinoma	IVD	ANB13
Thymidylate Synthase	TYMS/1884	Nuc & Cyt	Prostate carcinoma	IVD	AMC15
Thyroid Peroxidase	TPO/3694	Cyt & Mem	Thyroid Ca	IVD	AMA54
Tau	Tau-5	Cyt	Cerebellum	IVD	AM459
Terminal Deoxynucleotidyl Transferase (TdT)	EP266	Nuc	Thymus	IVD	AN881
Thyroglobulin	2H11	Cyt	Follicular Adenoma	IVD	AM032
Thyroid Stimulating Hormone (TSH)	5404	Cyt	Pituitary	IVD	AM033
Thyroid Stimulating Hormone (TSH)	Polyclonal	Cyt	Pituitary	IVD	AR033
Thyroxine	D5	Cyt	Thyroid	IVD	AM034A
TIA-1	2G9A10F5	Cyt	Anaplastic Large	IVD	AM529
Transferrin	HT1/13.6.3	Cyt	Liver	IVD	AM025
Transforming Growth Factor (TGF), Alpha	TGF88	Cyt	Breast Ca	IVD	AM377
Tubulin β3	TUJ1	Cell Mem	Brain	IVD	AM952
Tumor-Associated Glycoprotein (TAG-72)	B72.3	Cyt	Breast Ca	IVD	AM054
Tumor-Associated Glycoprotein (TAG-90, BCA)	B6.2	Cyt	Breast Ca	IVD	AM005
Topoisomerase II alpha	EP93	Nuc & Cyt	Breast Ca	IVD	AN823
Toxoplasma gondii	Polyclonal	Cyt	Toxoplasma Inf.	IVD	AR125E
TIGIT	TIGIT/3018	Mem	Renal clear cell Carcinoma	IVD	AMC34
Thyroid Peroxidase	TPO/3694	Cyt & Mem	Thyroid Ca	IVD	AMA54
TIM3	TIM3/3113	Mem	Lymph Node	IVD	AMA82
Transthyretin	TTR/4292	Cyt	Liver	IVD	AMA93
TLE-1	ZM93	Nuc	Colon	IVD	AMB58
TARDBP	E-10	Nuc & Cyt	Breast Carcinoma	IVD	AMC45
TLE1	TLE1/2062	Nuc	Colon	IVD	AMD40
Tau	BSB-115	Nuc & Cyt	RCC	IVD	AMC28

Antibody	Clone (Species)*	Localization	Positive Control	Regulatory Classification	SKU Family
Thyroid Transcription Factor (TTF-1)	SP141	Nuc	Thyroid	IVD	AN8887
Tyrosinase	Ty/G5	Cyt	Melanoma	IVD	AM535
TEF-3	B-5	Nuc	Esophagus	IVD	AMD58
TRPS-1	TRPS1/8131R	Nuc	Breast	IVD	AND65
TMPRSS2	TMPRSS2/7410	Mem & Cyt	Salivary Gland	IVD	AMD61
Uroplakin IIIa	C-6	Cyt	Bladder	IVD	AMB38
Vimentin	V9	Cyt	Leiomyoma	IVD	AM074
Villin	VIL1/4107R	Cyt & Mem	Colon	IVD	ANA42
VEGF	VEGFA/7758R	Cyt & Mem	Colon Ca	IVD	AND26
Vimentin, Non-Hematopoietic	LN6	Cyt	Leiomyoma	IVD	AM163
VEGF	Polyclonal	Cyt	Angiosarcoma	IVD	AR483
VISTA	VISTA/3007	Mem & Cyt	Squamous lung carcinoma	IVD	AMC22
WT1	WT1/1434R	Cell Mem	Wilm's Tumor And Mesthelioma	IVD	AN940
YAP	G-6	Cyt & Nuc	Breast Carcinoma	IVD	AMC50
ZAP-70	ZAP70-C3	Cyt & Mem	Tonsil	IVD	AM544
ZAP-70	EP52	Cyt & Mem	Tonsil	IVD	AN852
β-Actin	C4	Cytoplasm	Abdomen	IVD	AMC65E
β-Amyloid	B-4	Cyt & Mem	Kidney Carcinoma	IVD	AMC27

Listing by Categories

Categories	Clone
ACUTE ERYTHROID LEUKEMIA	
Anti-Glycophorin A	JC159
ACUTE MYELOID LEUKEMIA	
CD13	EP117(R)
CD34 (Endothelial Cell)	QBend/10(M)
MCM2	SP85(R)
Myeloperoxidase (MPO)	Polyclonal(R)
Perforin-1	PRF1/2470
IDH1 R132H	MRQ-67
CD162	PSGL1/1601
ADHESION MOLECULES	
CD27	Polyclonal(R)
Beta-Catenin	EP35(R)
CD138	EP201(R)
CD31 (PECAM-1)	9G11(M)
CD44 (Phagocytic Glycoprotein-1,HCAM)	DF1485(M)
E-Cadherin	36(M)
E-Cadherin	EP6(R)
Ep-CAM	EP155(R)
ADRENAL TUMORS	
CD56 (Natural Killer Cell,NCAM)	NKH-1(M)
Inhibin-Alpha	R1(M)
Synaptophysin	EP158(R)
Anti-IL6ST	IL6ST/4101
Anti-Steroidogenic Factor 1	NR5A1/3397
AMYLOID	
Kappa Light Chain	L1C1(M)
Lambda Light Chain	Polyclonal(R)
Lambda Light Chain	EP172(R)
BLADDER	
CD44 (Phagocytic Glycoprotein-1,HCAM)	DF1485(M)
c-erbB-2 (HER-2/neu)	EP3(R)
Cytokeratin 20	EP23
Cytokeratin 20	IT-Ks20.8(M)
Cytokeratin, High MW (Basic)	AE3(M)
Cytokeratin, Low MW	AE1(M)
Ki-67	K-2(M)
Ki-67 Antigen, Proliferating Cell	MIB-1(M)
Ki-67 Antigen, Proliferating Cell	Ki88(M)
MMP-9	EP127(R)
p53	EP9(R)
p53 Protein	BP53-12-1(M)

Categories	Clone
p53 Protein	DO7(M)
p53 Protein	1801(M)
Uroplakin III	C-6
CDK4	DCS-35
p57 kip2	KP10
SFTPD	SFTPD/7084R
BLOOD GROUP ANTIGEN	
Blood Group Antigen Lewis A	7LE(M)
Blood Group Antigen Lewis B	2-25LE(M)
BRAIN PATHOLOGY	
Epithelial Membrane Antigen (EMA)	E29(M)
Epithelial Membrane Antigen (EMA)	Mc5(M)
Follicle Stimulating Hormone (FSH)	Polyclonal(R)
Glial Fibrillary Acidic Protein (GFAP)	EP13(R)
Human Chorionic Gonadotropin (hCG) Beta	M94138(M)
HGH	Polyclonal(R)
Luteinizing Hormone (LH)	SP132(R)
PGP9.5 / UchL1	UCHL1/775
NeuN	NEUN/7071R
OLIG-2	OLIG2/7074R
SSTR 2	A-8
STAT5a	C-6
BREAST CARCINOMA	
CK7/18	KRT7.18/8899
BREAST PANEL	
Androgen Receptor	F39.4.1(M)
Bax Protein	Polyclonal(R)
Bcl-2α	SP66(R)
Bcl-2 Oncoprotein	Bcl-2/100(M)
BRCA1 Protein	Polyclonal(R)
Breast Carcinoma Antigen (BCA) 225	CU18(M)
CA 19-9	C241:5:1:4(M)
Calponin	CALP(M)
Calponin-1	EP63(R)
Cathepsin D	C15(M)
CD44 (Phagocytic Glycoprotein-1,HCAM)	DF1485(M)
CD66	BY114(M)
c-Kit/CD117	EP10(R)
CD117	T595(M)
CD227 (MUCIN 1)	VU-4H5(M)
c-erbB-2	SP3(R)
c-erbB-2	SP101(R)
c-erbB-2 (HER-2/neu)	CB11(M)
c-erbB-3 (HER-3)	RTJ1/A2(M)

Listing by Categories

Categories	Clone
Cytokeratin 5	EP24(R)
Cytokeratin 5	EP42(R)
Cytokeratin 6	EP67(R)
Cytokeratin 7	OV-TL12/30(M)
Cytokeratin 7 & 8	OV-TL12/30 & C51(M)
Cytokeratin 8	C-51(M)
Cytokeratin 14	EP61(R)
Cytokeratin 14	LL002(M)
EGFR	Polyclonal(R)
E-Cadherin	EP6(R)
E-Cadherin	36(M)
EGFR	EP22(R)
Estrogen Receptor, ER (InSite®)	ER88(M)
Fascin	FCN01(M)
Macrophage	LN5(M)
Mucin 1 (MUC1)	EP85(R)
Mucin 4 (MUC4)	1G8(M)
Mucin 2 (MUC2)	CCP58(M)
Myosin Heavy Chains,Smooth Muscle	SMMS.1(M)
p53	EP9(R)
p53 Protein	BP53-12-1(M)
p53 Protein	DO7(M)
p53 Protein	1801(M)
Progesterone Receptor (PR)	EP2(R)
Progesterone Receptor (PR)	1A6(M)
Progesterone Receptor, PR (InSite®)	PR88(M)
SOX2	Polyclonal(R)
SOX2	EP103(R)
Topoisomerase II, Alpha (TOP2A)	EP93(R)
Tumor-Associated Glycoprotein (TAG-72)	B72.3(M)
Tumor-Associated Glycoprotein (TAG-90 BCA)	B6.2(M)
Cytokeratin 18	IHC018
Cyclin D1	E3P5S
IDH1	IDH1/1152
ATRX	D-5
Estrogen Receptor Beta 1	ERb455
Catenin, beta (p120)	CTNNB1/1507
Neu	0.N.211
EMA	GP1.4
Cytokeratin	CAM5.2
Brg-1/SMARCA4	G-7
GATA-3	GATA3/6664
Mammaglobin	MGB/4811R
Cathepsin K	CTSK/2791
Laminin Receptor	RPSA/2699
TARDBP	E-10

Categories	Clone
YAP	G-6
Estrogen Receptor Alpha	1D5
Progesterone Receptor	PGR/6854R
TRPS-1	TRPS1/8131R
SLUG	A-7
CELL SURFACE MARKERS	
DOG1	1.1(M)
CELLULAR ANTIGENS	
Alpha-1-Antitrypsin	Polyclonal(R)
Cyclin D1	EP12(R)
CDK1	A17.1.1(M)
CDK2	SP80(R)
CDK9	K.513.1(R)
Dystrophin	Dys2(Dy8/6C5)(M)
Glomerular Epithelial Protein 1 (GLEPP-1)	5C11(M)
Mitochondrial Antigen	113-1(M)
Myelin Basic Protein	MBP88(M)
Myoglobin	MG-1(M)
Myoglobin	Polyclonal(R)
Myosin,Skeletal Muscle	MY-32(M)
p27 (Kip1)	EP104(R)
p27 (Kip1)	DCS72(M)
PMS2	EP51(R)
Survivin	EP119(R)
CEACAM1	Polyclonal(R)
GITR	Polyclonal(R)
Transferrin	HT1/13.6.3(M)
IDO	4D2(M)
CERVICAL	
Carcinoembryonic Antigen (CEA)	B01-94-11M-P(M)
Carcinoembryonic Antigen (CEA)	CEA88(M)
Carcinoembryonic Antigen (CEA)	Polyclonal(R)
Cytokeratin 7	OV-TL12/30(M)
Cytokeratin 7 & 8	OV-TL12/30 & C51(M)
Cytokeratin 10	DEK-10(M)
Cytokeratin 20	EP23
Cytokeratin 20	IT-Ks20.8(M)
p16	IHC116
Podoplanin	PDPN/1433
p21/WAF1	CIP1/4377R
ARID1A	PSG3
P16	JC8
HSV 1	10A3
Herpes Simplex Virus Type I (HSV I)	Polyclonal(R)
Herpes Simplex Virus Type II (HSV II)	Polyclonal(R)
Ki-67	K-2(M)

Listing by Categories

Categories	Clone
Ki-67 Antigen, Proliferating Cell	MIB-1(M)
Ki-67 Antigen, Proliferating Cell	Ki88(M)
p16 + Ki67	G175-405(M)+ EPR3611(R)
Papillomavirus Type 16 (HPV-16)	Cam Vir-1(M)
COLON	
Bcl-2α	SP66(R)
IgA	IA761
Beta-catenin	Polyclonal
COX2	COX2/3320R
IL-1a	IL1A/3981
Villin	VIL1/4107R
LI-cadherin/CDH17	CAEX3
TLE-1	ZM93
Interleukin 6	10C12
ETV4	Polyclonal
SV40 T Ag	Pab 101
P120/Catenin, delta-1 (CTNND1)	CTNND1/4383R
CD4	rCD4/3930
MLH1	MLH1/6284R
RRM1	RRM1/4372R
Interleukin-1beta	IL1B/3993
Myosin Heavy chain	MYH11/4337R
CD269/TNFRSF17/BCMA	BCMA/2366
CD95	FAS/3112
CEACAM1	E-1
IL-2	IL2/3949
IL-3	IL3/4004
SATB2	rSATB2/6929
VEGF	VEGFA/7758R
Aurora B	AURKB/1521
Aurora B	AURKB/1521
C-myc	MYC/7854R
NUT1	SNUPN/7363R
TLE1	TLE1/2062
PMS2	PMS2/8224R
BRAF (V600E)	V600E/1321
Bcl-2 Oncoprotein	bcl-2/100(M)
Fascin	FCN01(M)
p120 (Catenin delta 1)	SP63(R)
P504S (AMACR)	13H4(R)
P504S (AMACR)	RBT-AMACR(R)
COLORECTAL PANEL	
CA19-9	C241:5:1:4(M)
PMS2	B-3
SOX-9	SOX9/2387

Categories	Clone
CA 125	Ov185:1(M)
Carcinoembryonic Antigen (CEA)	B01-94-11M-P(M)
Carcinoembryonic Antigen (CEA)	CEA88(M)
Carcinoembryonic Antigen (CEA)	Polyclonal(R)
CD10	56C6(M)
CD133	PROM/6316
CDX-2	CDX2-88(M)
Cytokeratin 7	OV-TL12/30(M)
Cytokeratin 7 & 8	OV-TL12/30 & C51(M)
Cytokeratin 19	RCK108(M)
Cytokeratin 20	EP23
Cytokeratin 20	IT-Ks20.8(M)
Cytokeratin Cocktail	AE1 and AE3(M)
EGFR	Polyclonal(R)
KRAS	Polyclonal®
MLH1	ES05(M)
MSH2	SP46(R)
Mucin 1 (MUC1)	EP85(R)
Mucin 5AC (MUC5AC)	45M1(M)
Mucin 2 (MUC2)	CCP58(M)
p21/WAF1	4D10(M)
p53	EP9(R)
p53 Protein	BP53-12-1(M)
p53 Protein	DO7(M)
p53 Protein	1801(M)
PMS2	EP51(R)
CYTOTOXIC DRUG METABOLISM	
Glutathione S-Transferase Pi (GST Pi)	Polyclonal(R)
Multi-Drug Resistance Marker (P-Glycoprotein)	MDR88(M)
EMBRYONAL CARCINOMA	
Alpha-Fetoprotein (AFP)	C3(M)
Oct-3/4	C-10
NGF-Receptor	NGFR5+NTR/912
ENDOCRINE PANEL	
ACTH	AH26(M)
ACTH	O2A3
Estradiol	Polyclonal(R)
Follicle Stimulating Hormone (FSH)	Polyclonal(R)
Glucagon	Polyclonal(R)
HGH	Polyclonal(R)
Human Chorionic Gonadotropin (hCG) Beta	M94138(M)
Inhibin-Alpha	R1(M)
Insulin	EP125(R)
Insulin	HB125(M)
Thyroglobulin	2H11(M)
Thyroid Stimulating Hormone (TSH)	5404(M)

Listing by Categories

Categories	Clone
Thyroid Stimulating Hormone (TSH)	Polyclonal(R)
Thyroxine	D5(M)
ENDOMETRIOID CARCINOMA	
Vimentin	V9(M)
ENDOTHELIAL VASCULAR MARKER	
CD31 (Endothelial Cell)	JC/70A(M)
CD31 (PECAM-1)	9G11(M)
CD34 (Endothelial Cell)	QBend/10(M)
CD34 (Endothelial Cell)	EP88(R)
Factor XIII Subunit A	E980.1(M)
ENZYMES	
Alpha-1-Antichymotrypsin	α1A88(M)
SDHB	SDHB/2382
SDHB	SDHB/6697R
Alpha-1-Antitrypsin	Polyclonal(R)
Cathepsin D	C15(M)
EPITHELIAL MARKERS	
CD34 (Endothelial Cell)	QBend/10(M)
Cytokeratin 4	EP4(R)
Cytokeratin 4	6B10(M)
Cytokeratin 6	EP67(R)
Cytokeratin 8 & 18	5D3(M)
Cytokeratin 18	DC-10(M)
Cytokeratin Cocktail	AE1 and AE3(M)
Cytokeratin cocktail, Broad Spectrum	34ßE12/C51/AE1(M)
Cytokeratin, High MW	34ßE12(M)
Cytokeratin, High MW (Basic)	AE3(M)
Cytokeratin, Low MW	AE1(M)
Cytokeratin, Pan	Lu-5(M)
Cytokeratin, Pan	C11(M)
Collagen IV	COL-94(M)
Ep-CAM	EP155(R)
Epithelial-Specific Antigen	MOC-31(M)
Glomerular Epithelial Protein 1 (GLEPP-1)	5C11(M)
MUC4	1G8(M)
Mucin 2 (MUC2)	CCP58(M)
EWING'S SARCOMA	
CD56 (Natural Killer Cell,NCAM)	NKH-1(M)
EXTRACELLULAR MATRIX PROTEIN	
Collagen III	HWD1.1(M)
Collagen IV	COL-94(M)
Laminin	Polyclonal(R)
GASTROINTESTINAL PANEL	
Carcinoembryonic Antigen (CEA)	B01-94-11M-P(M)
Claudin-4	A-12
Stat-6	D-1

Categories	Clone
Galectin-3	B2C10
STAT6(AMB34 Pricing)	EP325
Pax-7	EE-8
Nkx3.2	H-4
LI Cadherin/ Cadherin 17	CDH17/2615
MUC6(Mucin6)	SPM598
Ep-CAM	MOC-31
PDGFR-B	D-6
ACE-2	ACE2/6788R
CA-IX	H-11
C-myc	EP121
BrdU	BU20a
Factor XIIIa	F13A1/1683
BrdU	BRD494
CD79a	IGA/515
H. Pylori	HPYL/7172
IL-5	IL5/4161
Somatostatin	G-10
Caspase-3 p17	B-4
CDX2	CDX2/1690
Gastrin	GAST/2634
TEF-3	B-5
Carcinoembryonic Antigen (CEA)	CEA88(M)
Carcinoembryonic Antigen (CEA)	Polyclonal(R)
c-Kit/CD117	EP10(R)
CD117	T595(M)
CDX-2	CDX2-88(M)
CD38	SP149(R)
c-erbB-2 (HER-2/neu)	EP3(R)
Cytokeratin 7	OV-TL12/30(M)
DOG1	1.1(M)
Secretin	Polyclonal(R)
Substance P	Polyclonal(R)
SOX2	Polyclonal(R)
SOX2	EP103(R)
Transforming Growth Factor (TGF) Alpha	TGF88(M)
GERM CELL TUMORS	
Alpha-Fetoprotein (AFP)	C3(M)
Glypican-3 (GPC3)	GPC3-88(M)
Inhibin, alpha (INHA)	INHA/4265
SPARC (Osteonectin)	ON1-1
SALL4	6E3
Glutamine Synthetase	E-4
CTLA-4 (CD152)	F-8
Cyclin B1	CCNB1/1098
Annexin VII	A-1

Listing by Categories

Categories	Clone
Annexin A1 (Hairy Cell Leukemia)	ANXA1/3566
ALDH1A1	rALDH1A1/7285
PRPS1/2/3	A-11
CD30 (Ki-1 Antigen)	HRS-4(M)
c-Kit/CD117	EP10(R)
CD117	T595(M)
Human Chorionic Gonadotropin (hCG) Beta	M94138(M)
Oct-4	EP143(R)
Placental Alkaline Phosphatase (PLAP)	PL8-F6(M)
GYNECOLOGICAL	
Placental Alkaline Phosphatase (PLAP)	PL8-F6(M)
Placental Lactogen (hPL)	Polyclonal(R)
HEMANGIOBLASTOMA	
CD31 (PECAM-1)	9G11(M)
CD34 (Endothelial Cell)	QBend/10(M)
HEMATOPOIETIC / LYMPHOID MARKERS	
CD41/Integrin	EP178(R)
CD53	EP179(R)
Granulocyte	BM-2(M)
IgA	Polyclonal(R)
IgD	Polyclonal(R)
IgG	IgG88(R)
IgG	Polyclonal(R)
IgM	IgM88(M)
IgM	Polyclonal(R)
HODGKIN'S LYMPHOMA	
Bcl-6	LN22(M)
CD15 (Blood group antigen Lewis X)	BRA4F1(M)
CD30 (Ki-1 Antigen)	Ber-H2(M)
CD30 (Ki-1 Antigen)	HRS-4(M)
Coagulation Factor XIIIa	SP196(R)
BAX Protein	2D2
MDM2	D-7
EBV/LMP-1	CS1-4
LEF1	EP310
Desmoglein 1	DSG1/1733
Fascin	FCN01(M)
Mum/IRF4	SP114(R)
Oct-2	EP115(R)
HORMONE REGULATED PROTEIN	
Cathepsin D	C15(M)
Gastrin	Polyclonal(R)
Heat Shock Protein (HSP-70)	BRM-22(M)
Heat Shock Protein 27 (HSP 27)	G3.1(M)
pS2 Estrogen Inducible Protein	PS2.1(M)
Secretin	Polyclonal(R)

Categories	Clone
IMMUNOGLOBULIN & COMPLEMENT PROTEINS	
IgA	Polyclonal(R)
IgD	Polyclonal(R)
IgG	IgG88(R)
IgM	IgM88(M)
IgM	Polyclonal(R)
J Chain	JC88(M)
Kappa Light Chain	L1C1(M)
Lambda Light Chain	SP147(R)
Lambda Light Chain	EP172(R)
Lambda Light Chain	Polyclonal(R)
INFECTIOUS AGENTS	
Adenovirus	A62020069P(M)
Cytomegalovirus (CMV)	BM204(M)
Epstein-Barr Virus (EBV) Early Antigen	1108-1(M)
H.Pylori	ULC3R(M)
Hepatitis B Virus Core Antigen (HBcAg)	Polyclonal(R)
Herpes Simplex Virus Type I (HSV I)	Polyclonal(R)
Papillomavirus Type 16 (HPV-16)	CamVir-1(M)
Toxoplasma gondii	Polyclonal(R)
INTERMEDIATE FILAMENTS & CYTOSKELETAL PROTEINS	
Actin, Muscle-Specific	HHF35(M)
Actin, Smooth Muscle	1A4(M)
Alpha-Actinin	JLN20(M)
Alpha-Tubulin	DM-1A(M)
Beta-Tubulin	DM-1B(M)
Beta-Tubulin II	JDR3B8(M)
Beta-Tubulin III	SDL3D10(M)
Beta-Tubulin IV	ONS1A6(M)
Caldesmon HMW, Smooth muscle	h-CD(M)
Calponin-1	EP63(R)
Calponin	CALP(M)
Desmin	D33(M)
Dystrophin	Dys2(Dy8/6C5)(M)
Fascin	FCN01(M)
Glial Fibrillary Acidic Protein (GFAP)	GA-5(M)
Glial Fibrillary Acidic Protein (GFAP)	Polyclonal(R)
Muscle Actins	Actin 88 Cocktail(M)
Myogenin	LO26(M)
Myoglobin	MG-1(M)
Myoglobin	Polyclonal(R)
Myosin Heavy Chain, Smooth Muscle	SMMS.1(M)
Myosin, Skeletal Muscle	MY-32(M)
Neurofilament	NE-14(M)
Paxillin	EP89(R)
Sarcomeric Actin	ZMSA-5(M)

Listing by Categories

Categories	Clone
Tau	Tau-2(M)
Tau	Tau-5(M)
Vimentin	V9(M)
Vimentin,Non-Hematopoietic	LN6(M)
KIDNEY: RENAL EPITHELIAL TUMORS	
CD117	T595(M)
FLI1	MRQ-1
INI-1	A-5
TFE3	EP285
SPEC1	RBC2/3D5
Stat 3	STAT3/2409
INI1/SNF5/SMARCB1	SMARCB1/3984
β-Amyloid	B-4
Tau	BSB-115
TIGIT	TIGIT/3017
AMACR	13H4
IL-15	IL15/7048R
MTAP	MTAP/1813
TMPRSS2	H-4
Lysozyme	LYZ/3943
CD10	MME/6461
C4d	C4D204
LEUKEMIA	
BCR-ABL	7C6(M)
Bcl-2α	SP66(R)
CD117/c-Kit/SCF-Receptor	Polyclonal
c-Kit/CD117	EP10(R)
CD43	SP55(R)
Granzyme B	2C5
Cyclin D1	EP12(R)
HLA-DR	LN3(M)
Lysozyme	Polyclonal(R)
MMP-9	EP127(R)
Myeloid specific Antigen	BM-3(M)
Myeloid specific Antigen	BM-1(M)
LAG3	Polyclonal(R)
SLAMF7	Polyclonal(R)
ZAP-70	EP52(R)
LIVER	
Alpha-1-Antichymotrypsin	α1A88(M)
Serum Amyloid P	APCS/3240
Transthyretin	TTR/4292
Filaggrin	FLG/1562
Caspase-3	31A1067
Adipophilin	ADFP/1494
Arginase 1	C-2

Categories	Clone
Arginase 1	ARG1/1126
Serum Amyloid A	SAA/326
HSA (HepPar 1)	OCH1E5
Alpha-1-Antichymotrypsin	SERPINA3/4187
Myeloperoxidase	MPO/7118
MHC Class I	F-3
Alpha-1-Antitrypsin	Polyclonal(R)
Alpha-Fetoprotein (AFP)	C3(M)
Glypican-3 (GPC3)	GPC3-88(M)
HSA	HSA/E8(M)
p53	EP9(R)
p53 Protein	BP53-12-1(M)
p53 Protein	DO7(M)
p53 Protein	1801(M)
LUNG	
ALK/p80	SP8(R)
ALK	SP144(R)
Calretinin	2E7(M)
Calretinin	Polyclonal(R)
Carcinoembryonic Antigen (CEA)	B01-94-11M-P(M)
Carcinoembryonic Antigen (CEA)	CEA88(M)
Carcinoembryonic Antigen (CEA)	Polyclonal(R)
CD44 (Phagocytic Glycoprotein-1,HCAM)	DF1485(M)
CD66	BY114(M)
Chromogranin A	LK2H10(M)
Chromogranin A	PHE-5(M)
Claudin-5	EP224(R)
Cytokeratin 5	EP24(R)
Cytokeratin 5	EP42(R)
Cytokeratin 6	EP67(R)
Cytokeratin 5&6	EP24 & EP67(R)
Cytokeratin 7	OV-TL12/30(M)
Cytokeratin 7 & 8	OV-TL12/30 & C51(M)
Cytokeratin 8 & 18	5D3(M)
Cytokeratin 19	RCK108(M)
Cytokeratin 20	EP23
Cytokeratin 20	IT-Ks20.8(M)
Cytokeratin Cocktail	AE1 and AE3(M)
Cytokeratin, High MW	34βE12(M)
Cytokeratin, High MW (Basic)	AE3(M)
Cytokeratin, Low MW	AE1(M)
EGFR	Polyclonal(R)
Cyclin D3	DCS22
SOX2	SOX2/1791
TTF-1	NX2.1/690
Podoplanin	PDPN/1433

Listing by Categories

Categories	Clone
CD133	PROM/6316
CD35	To5
VISTA	VISTA/3007
PD-L1	PDL1/2746
Desmoglein-3	DSG3/2839
Epithelial Membrane Antigen (EMA)	E29(M)
Epithelial Membrane Antigen (EMA)	Mc5(M)
Epithelial-Specific Antigen	MOC-31(M)
Fascin	FCN01(M)
Ki-67	K-2(M)
Ki-67 and Lambda Light Chain Cocktail	K-2(M) and Polyclonal (R)
Ki-67 Antigen,Proliferating Cell	MIB-1(M)
Ki-67 Antigen,Proliferating Cell	Ki88(M)
KRAS	Polyclonal(R)
Mast Cell Tryptase	AA1(M)
Mesothelin	5B2(M)
Napsin A	IP64(M)
Neuron Specific Enolase (NSE)	MIG-N3(M)
p21/WAF1	4D10(M)
p53	EP9(R)
p53 Protein	BP53-12-1(M)
p53 Protein	DO7(M)
p53 Protein	1801(M)
VEGF	Polyclonal(R)
LYMPHOCYTE DISORDERS	
CD57 (Natural Killer Cell)	NK-1(M)
LYMPHOMA	
ALK/p80	SP8(R)
Ki-67	MKI67/2462
CD163	M130/2162
vWF	VWF/2480
CD8a	C8/468
CD21	RM372
C4D	Polyclonal
PAX5	PAX5/3735
CD20	MS4A1/3409
Microglia/AIF1	AIF1/2468
CD123 (IL3RA)	IL3RA/1531
TIM3	TIM3/3113
IgG	RWP49
CD137	BBK-2
Clusterin	A-9
ALK/CD246	ALK/1031
HLA-DR/DP/DQ/DX	CR3/43

Categories	Clone
CD57	NK/804
BOB-1	NCL-L-BOB-1
Retinoblastoma Gene	13A10
IgG4	IGHG4/2042R
Histone H3	PHH3/471R
Podoplanin	PDPN/4009R
MiTF	D5
BRACHYURY	A-4
CD31	JC/70A
Lamin B1	A-11
Pygopus 2	B-12
R1	A-10
CD11b	ITGAM/3340
CD20	MS4A1/3409
GM-CSF	CSF2/3403
MCM7	SPM379
CD171/NCAM-L1	SPM275
SOX-11	SOX11/7236
PARP-1	B-10
CD2	LFA2/7106
IgD	IgD26
C4d	SPM545
Podoplanin	D2-40
SLAMF7	SLAMF7/3649
SLAMF7	SLAMF7/3649
CD223	D-8
HLA-DP/-DR	Bra-14
Granzyme B	2C5
ALK	SP144(R)
Bcl-2α	SP66(R)
CD117	Polyclonal(R)
Cyclin D1	EP12(R)
CD117/c-Kit/SCF-Receptor	Polyclonal(R)
Epithelial Membrane Antigen (EMA)	E29(M)
Epithelial Membrane Antigen (EMA)	Mc5(M)
Ki-67 and Lambda Light Chain Cocktail	K-2(M) and Polyclonal(R)
Macrophage	LN5(M)
p34cdc2 (Cyclin Dependent Kinase)	POH-1(M)
Synaptophysin	Snp88(M)
ZAP-70	EP52(R)
LYMPHOMA (B PANEL)	
Bcl-2α	SP66(R)
B Cell	MB2(M)
B Lymphocyte Antigen 36 (BLA.36)	A27-42(M)
Bcl-2	EP36(R)
CD19	EP169(R)

Listing by Categories

Categories	Clone
CD20	CD20/C23(M)
CD20 (B Cell)	L-26(M)
CD21	SP186(R)
CD21	EP64(R)
CD21	B2(M)
CD23	Polyclonal(R)
CD38	SP149
CD45 (Leukocyte common Antigen,LCA)	LJ27.9(M)
CD79a	SP18(R)
CD79a	EP82(R)
CD79a	11E 3(M)
CDw75 (B Cell)	LN1(M)
IgD	Polyclonal(R)
IgM	IgM88(M)
IgM	Polyclonal(R)
Kappa Light Chain	L1C1(M)
Lambda Light Chain	EP172(R)
Lambda Light Chain	Polyclonal(R)
Oct-2	EP115(R)
Mum/IRF4	SP114(R)
PU.1	EP18(R)
LYMPHOMA (T PANEL)	
CD16a	SP189(R)
CD16a	SP175 (R)
CD2	AB75(M)
CD4	EP204(R)
CD4	4B12(M)
CD5	EP77(R)
CD5	4C7(M)
CD7	SP94(R)
CD7	LP15(M)
CD8	SP16(R)
CD8	1A5(M)
CD8	T8(M)
CD16	2H7(M)
CD43 (T Cell, Leukosialin)	DFT-1(M)
CD43	SP55(R)
CD45 (Leukocyte common Antigen,LCA)	LJ27.9(M)
CD45RC (T Cell)	MT2(M)
CD45RO (T Cell)	UCHL-1(M)
CD95	EP208(R)
CD99	EP8(R)
CD99	HO36.1.1(M)
CD103	EP206(R)
TIA-1	2G9A10F5(M)
VIP	Polyclonal(R)

Categories	Clone
LYMPHOMAS & LEUKEMIAS	
Bcl-2 Oncoprotein	Bcl-2/100(M)
Bcl-6	LN22(M)
CD10	56C6(M)
CD11b/ITAM	M01(M)
CD11b/ITAM	EP45(R)
CD11c	EP157(R)
CD14	EP128(R)
CD29	JB1a(M)
CD35	SP191(R)
CD35	RLB25(M)
CD45 (Leukocyte common Antigen,LCA)	PD7/26/16 & 2B11(M)
CD45 Cocktail (Leukocyte Antigen, LCA)	MEM55+LJ27.9 (M)
CD45RB	MEM55(M)
CD48	EP148(R)
CD68	KP1(M)
CD68	CD68/G2(M)
CD71 (Transferrin Receptor)	H68.4(M)
CD73	1D7(M)
CD74 (B Cell)	LN2(M)
CD40	CL1673(M)
CD90	EP56(R)
CD117	T595(M)
CD205	EP176(R)
Oct-2	EP115(R)
J chain	SP105(R)
Terminal Deoxynucleotidyl Transferase (TdT)	EP266(R)
ZAP-70	ZAP70-C3(M)
MELANOMA	
CD63	EP211(R)
Nucleophosmin	NPM1/3286
Melanoma Marker	A103+T311+HMB45
Langerin	H-4
p63	TP63/1423R
PRAME	PRAME/8558R
Cytokeratin 5	rKRT5/6398
Nucleophosmin	rNPM1/1901
S100B	S100B/1012
CD146	EP54®
Melan-A (MART-1)	A103(M)
Melanoma	HMB45(M)
Melanoma gp100	gp100/D5(M)
Melanoma-Associated Antigen	NKI/C3(M)
MiTF	MiTF/A13(M)
MMP-9	EP127(R)
S100 beta	EP32(R)

Listing by Categories

Categories	Clone
S100 Protein	Polyclonal(R)
S100 Protein	15E2E2(M)
SOX2	Polyclonal(R)
SOX2	EP103(R)
Tyrosinase	Ty/G5(M)
MERKEL CELL CARCINOMA	
E-Cadherin	36(M)
E-Cadherin	EP6(R)
MESOTHELIOMA	
CA 125	Ov185:1(M)
BAP1	BAP1/8959R
GLUT1	GLUT1/3132R
Cytokeratin 5	EP24(R)
Cytokeratin 5	EP42(R)
Cytokeratin 6	EP67(R)
Mesothelin	5B2(M)
MYOSARCOMA	
Actin, Muscle-Specific	HHF35(M)
Actin, Smooth Muscle	1A4(M)
Alpha-Actinin	JLN20(M)
Actin, Muscle Specific	SPM160
Caldesmon HMW, Smooth muscle	h-CD(M)
Calponin	CALP(M)
Calponin-1	EP63(R)
Myosin Heavy Chains,Smooth Muscle	SMMS.1(M)
NEUROBIOLOGY (BRAIN PATHOLOGY)	
S100 beta	EP32(R)
S100 Protein	Polyclonal(R)
S100 Protein	15E2E2(M)
NEUROBLASTOMA	
CD38	SP149(R)
CD56	123A8
Chromogranin A	LK2H10(M)
Chromogranin A	PHE-5(M)
Neurofilament	NE-14(M)
Neuron Specific Enolase (NSE)	MIG-N3(M)
PGP9.5	3D9(M)
NEUROECTODESMAL TUMOR	
CD56 (Natural Killer Cell,NCAM)	NKH-1(M)
NEUROENDOCRINE POLYPEPTIDES (BRAIN PATHOLOGY)	
Glial Fibrillary Acidic Protein (GFAP)	GA-5(M)
Glial Fibrillary Acidic Protein (GFAP)	Polyclonal(R)
Interferon Alpha	IFNA/6689
Substance P	Polyclonal(R)
Tau	Tau-2(M)
Tau	Tau-5(M)

Categories	Clone
NATURAL KILLER CELL PANEL	
CD56 (Natural Killer Cell,NCAM)	NKH-1(M)
CD57 (Natural Killer Cell)	NK-1(M)
OVARIAN MARKERS	
Alpha-Fetoprotein (AFP)	C3(M)
Bcl-2α	SP66(R)
Bcl-2	EP36(R)
Bcl-2 Oncoprotein	bcl-2/100(M)
CA19-9	C241:5:1:4(M)
CA 125	Ov185:1(M)
CD44 (Phagocytic Glycoprotein-1,HCAM)	DF1485(M)
CDX-2	CDX2-88(M)
Cytokeratin 5	EP24(R)
Cytokeratin 5	EP42(R)
Cytokeratin 7	OV-TL12/30(M)
Cytokeratin, High MW	34ßE12(M)
Cytokeratin, High MW (Basic)	AE3(M)
Cytokeratin, Low MW	AE1(M)
Fascin	FCN01(M)
INSM1	INSM1/6286R
Mesothelin (Mesothelial Marker)	MSLN/2131
PAX8	PAX8/2774R
CD47	CD47/3019
PAX3	PAX3/4700
PAX3	PAX3/4700
PANCREATIC MARKERS	
CA19-9	C241:5:1:4(M)
Carcinoembryonic Antigen (CEA)	B01-94-11M-P(M)
Carcinoembryonic Antigen (CEA)	CEA88(M)
Carcinoembryonic Antigen (CEA)	Polyclonal(R)
CD56 (Natural Killer Cell,NCAM)	NKH-1(M)
Chromogranin A	LK2H10(M)
Cytokeratin 7	OV-TL12/30(M)
Cytokeratin 19	RCK108(M)
E-Cadherin	EP6(R)
Synaptophysin	SYP/3551
Chromogranin A	CGA/413+CHGA/777+CHGA/798
INSM1	A-8
ACT	AACT/1451
CD64	C-6
CPA1	CPA1/2712
Pancreatic Lipase	A-3
SMAD4	rSMAD4/6310
Glucagon	C-11

Listing by Categories

Categories	Clone
MRP3	ABCC3/2971
E-Cadherin	36(M)
Fascin	FCN01(M)
Glucagon	Polyclonal(R)
Insulin	EP125(R)
Insulin	HB125(M)
KRAS	Polyclonal(R)
PECOMA	
CD63	EP211(R)
PLACENTAL MARKERS	
Factor XIIIa	AC-1A1
NESTIN	NES/2911
CD235a/Glycophorin A	GYPA/280
Fibronectin	EP5
MCM3	E-8
Human Chorionic Gonadotropin (hCG) Beta	M94138(M)
PROLIFERATION-ASSOCIATED ANTIGENS	
Cyclin E1	EP126(R)
EGFR	Polyclonal(R)
Ki-67	K-2(M)
Ki-67 and Lambda Light Chain Cocktail	K-2(M) and Polyclonal (R)
Ki-67 Antigen,Proliferating Cell	MIB-1(M)
Ki-67 Antigen,Proliferating Cell	Ki88(M)
MCM2	EP40(R)
Proliferating Cell Nuclear Antigen (PCNA)	PC10(M)
PROSTATE MARKERS	
Androgen Receptor	F39.4.1(M)
Bcl-2 Oncoprotein	bcl-2/100(M)
Bcl-2α	SP66(R)
Bcl-x	EP94(R)
CD38	SP149(R)
CD44 (Phagocytic Glycoprotein-1,HCAM)	DF1485(M)
Cytokeratin 5	EP24(R)
Cytokeratin 5	EP42(R)
Cytokeratin 14	EP61(R)
Cytokeratin 14	LL002(M)
Cytokeratin cocktail, Broad Spectrum	34ßE12/C51/AE1(M)
Cytokeratin, High MW	34ßE12(M)
Cytokeratin, High MW (Basic)	AE3(M)
Cytokeratin, Low MW	AE1(M)
ERG, Ets-Related Gene	EP111(R)
Mucin 2 (MUC2)	CCP58(M)
P504S (AMACR)	13H4(R)
p40	TP40/3980R
NKX3.1	NKX3.1

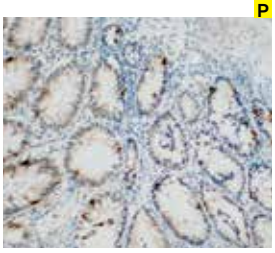
Categories	Clone
Smoothelin	C-8
Prostein	A-5
PSAP	PASE/4LJ
Histone H3	1G1
Thymidylate Synthase	TYMS/1884
NKX-2.2	D-4
FOXP1	FOXP1/44R
P504S (AMACR)	RBT-AMACR(R)
PAP	A40010(M)
Prostate Specific Acid Phosphatase (PSAP)	B01-94-21M-NA(M)
Prostate Specific Antigen (PSA)	ErPr-8(M)
PSMA	EP192(R)
PSMA	SP29(R)
RHABDOMYOSARCOMAS	
Myogenin	EP162(R)
MYOD1	rMYD712
RENAL CELL CARCINOMA MARKERS	
Cytokeratin, Low MW	AE1(M)
Renal Cell Carcinoma (RCC)	RCC-26(M)
SALIVARY DUCT CARCINOMA	
GCDFP-15	EP95(R)
Mucin 2 (MUC2)	CCP58(M)
SEX CORD STROMAL TUMORS	
Calretinin	2E7(M)
Calretinin	Polyclonal(R)
Inhibin-Alpha	R1(M)
SIGNAL TRANSDUCTION PROTEIN	
CD5	4C7(M)
c-erbB-2	SP101(R)
c-erbB-2	SP3(R)
c-erbB-2 (HER-2/neu)	CB11(M)
c-erbB-2 (HER-2/neu)	EP3(R)
c-erbB-3 (HER-3)	RTJ1/A2(M)
EGFR	Polyclonal(R)
Platelet-Derived Growth Factor (PDGF)	Polyclonal(R)
ZAP-70	EP52(R)
ZAP-70	ZAP70-C3(M)
SKELETAL MUSCLE	
Desmin	D33(M)
Dystrophin	Dys2(Dy8/6C5)(M)
Myoglobin	MG-1(M)
Myoglobin	Polyclonal(R)
Myosin,Skeletal Muscle	MY-32(M)
p34cdc2 (Cyclin Dependent Kinase)	POH-1(M)
Sarcomeric Actin	ZMSA-5(M)

Listing by Categories

Categories	Clone
Vimentin	V9(M)
Vimentin,Non-Hematopoietic	LN6(M)
SKIN (ADNEXAL TUMORS)	
Cytokeratin 15	EP14(R)
CD15 (Blood group antigen Lewis X)	BRA4F1(M)
Epithelial Membrane Antigen (EMA)	E29(M)
Epithelial Membrane Antigen (EMA)	Mc5(M)
SKIN (SPINDLE CELL TUMORS)	
Calponin-1	EP63(R)
CD31 (PECAM-1)	9G11(M)
CD34 (Endothelial Cell)	QBend/10(M)
Collagen IV	COL-94(M)
Cytokeratin 8&18	5D3(M)
Factor XIII Subunit A	E980.1(M)
SMALL CELL CARCINOMA OF LUNG	
CD56 (Natural Killer Cell,NCAM)	NKH-1(M)
SMALL, ROUND BLUE CELL TUMORS	
Calponin	CALP(M)
Calponin-1	EP63(R)
CD63	EP211(R)
CD68	KP1(M)
CD68	CD68/G2(M)
Myoglobin	MG-1(M)
Myoglobin	Polyclonal(R)
PGP9.5	3D9(M)
Vimentin	V9(M)
SOFT Tissue SARCOMA	
CD34 (Endothelial Cell)	QBend/10(M)
SOFT Tissue TUMOR	
Calretinin	2E7(M)
Calretinin	Polyclonal(R)
Desmin	D33(M)
SPINDLE CELL TUMORS	
CD56 (Natural Killer Cell,NCAM)	NKH-1(M)
Desmin	D33(M)
PGP9.5	3D9(M)
SQUAMOUS CELL CARCINOMAS	
Cytokeratin PAN	AE-1/AE-3
STRESS RESPONSE PROTEIN	
Heat Shock Protein (HSP-70)	BRM-22(M)
Heat Shock Protein 27 (HSP 27)	G3.1(M)
THYROID MARKERS	
Cytokeratin 19	RCK108(M)
Cytokeratin, High MW	34ßE12(M)
Cytokeratin, High MW (Basic)	AE3(M)
Cytokeratin, Low MW	AE1(M)

Categories	Clone
p21/WAF1	4D10(M)
Thyroglobulin	2H11(M)
Thyroid Stimulating Hormone (TSH)	5404(M)
Thyroid Stimulating Hormone (TSH)	Polyclonal(R)
Thyroid Transcription Factor (TTF-1)	SP141
Thyroxine	D5(M)
Thyroid Peroxidase	TPO/3694
PIT-1	PIT1/7262
TRANSITIONAL CELL CARCINOMA	
Cytokeratin, High MW (Basic)	AE3(M)
Alpha-1-Antitrypsin	AAT/3167R
AFP	C2+C3+MBS-12
EGFR	GFR/2596
TUMOR SUPPRESSORS, APOPTOSIS PROTEINS & ONCOPROTEINS	
Bcl-2α	SP66(R)
Bcl-x	EP94(R)
BRCA1 Protein	Polyclonal(R)
c-Kit/CD117	EP10(R)
c-erbB-2 (HER-2/neu)	EP3(R)
p27 (Kip1)	EP104(R)
p53	EP9(R)
p53 Protein	BP53-12-1(M)
p53 Protein	DO7(M)
p53 Protein	1801(M)
PDCD4	EP102(R)
p27 (Kip1)	DCS72(M)
VASCULAR ENDOTHELIAL	
Basic Fibroblast Growth Factor (bFGF)	bFGF88(M)

ABCC3



Colon tissue stained with Anti-ABCC3 using DAB chromogen

Clone:	Polyclonal
Isotype:	IgG
Source:	Rabbit
Immunogen:	ABCC3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 899-925 amino acids from the central region of human ABCC3.
Specificity:	Human ABCC3
Localization:	Membrane
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	AR800-5R
Ready-to-Use (Automated):	
i6000™	AR800-10R
Xmatrx®	AW800-YCD,AW800-50D
NanoVip™	AW800-4M
Concentrated:	PU800-UP, PU800-5UP
Recommended Positive Control:	FG-800P (Manual & i6000)
Recommended Microchamber Slide:	FB-800P (Xmatrx & NanoVip™)

ABC proteins transport various molecules across extra- and intra-cellular membranes. ABC genes are divided into seven distinct subfamilies (ABC1, MDR/TAP, MRP, ALD, OABP, GCN20, White). This protein is a member of the MRP subfamily which is involved in multi-drug resistance. The specific function of this protein has not yet been determined; however, this protein may play a role in the transport of biliary and intestinal excretion of organic anions.

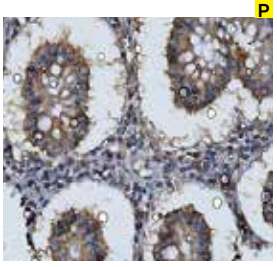
Alpha 1-Antichymotrypsin

Tonsil tissue stained with Anti-AACT using DAB chromogen

Clone:	AACT/1451
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human ACT protein
Specificity:	Human ACT
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	AMC09-5M
Ready-to-Use (Automated):	
i6000™	AXC09--10M
Xmatrx®	AXC09-YCD,AXC09-50D
NanoVip™	AXC09-4M
Concentrated:	MUC09-UC,MUC09-5UC
Recommended Positive Control:	FG-C09M (Manual & i6000)
Recommended Microchamber Slide:	FB-C09M (Xmatrx & NanoVip™)

ACE 2



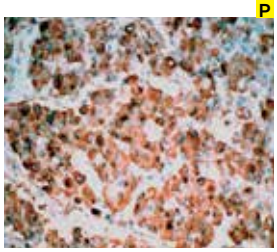
Appendix tissue stained with Anti-ACE2 using DAB Chromogen

Clone:	ACE2/6788R
Isotype:	IgG, kappa
Source:	Rabbit
Immunogen:	Recombinant human ACE 2 protein
Specificity:	ACE 2
Localization:	Membrane
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK547- XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ANC18-5M**
Ready-to-Use (Automated):	
***i*6000™**	**ANC18-10M**
Xmatrx®	**AYC18-YCD, AYC18-50D**
NanoVip™	**AYC18-4M**
Concentrated:	**NUC18-UC, NUC18-5UC**
Recommended Positive Control:	**FG-C18N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C18N (Xmatrx & NanoVip™)**

ACE2 (Angiotensin Converting Enzyme 2) is a type I integral transmembrane zinc metalloprotease belongs to the ACE family. It is a critical component in the rennin-angiotensin system (RAS) and catalyzes the conversion of inactive vasoconstrictor angiotensin I to Ang1-9 or of angiotensin II to the vasodilator angiotensin 1-7. ACE2 plays a essential role in regulation of cardiovascular, renal functions and serves as a functional receptor for spike glycoprotein of SARS coronaviruses. The expression of ACE2 is found in vascular endothelial cells of the heart and kidney and Leydig and Sertoli cells of the testis.

ACTH



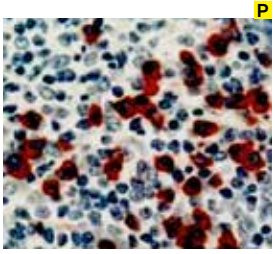
Pituitary tissue stained with Anti-ACTH using DAB chromogen

Clone:	AH26
Isotype:	IgG
Source:	Mouse
Immunogen:	A synthetic peptide corresponding to amino acids1-24 from the N-terminal of human ACTH
Specificity:	ACTH
Localization:	Cytoplasm
Pre-treatment:	EZ-AR1/EZ-AR2 elegance
Manual/i6000:	HK546-XAK/HK547-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM487-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM487-10M**
Xmatrx®	**AX487-YCD,AX487-50D**
NanoVip™	**AX487-4M**
Concentrated:	**MU487-UC, MU487-5UC**
Recommended Positive Control:	**FG-487M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-487M (Xmatrx & NanoVip™)**

Adrenocorticotropic hormone (ACTH or Corticotropin) is a polypeptide tropic hormone produced and secreted by the anterior pituitary gland. It is an important component of the hypothalamic-pituitary-adrenal axis and is often produced in response to biological stress (along with corticotrophin-releasing hormone from the hypothalamus). Its principal effects are increased production of androgens and as its name suggests, cortisol from the adrenal cortex. It labels corticotrophs in the adenohypophysis and is useful in the classification of pituitary adenomas.

Actin, Muscle Specific



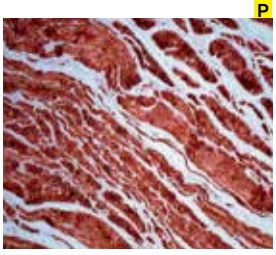
Muscle tissue stained with Anti-Actin using DAB chromogen

Clone:	SPM160
Isotype:	IgG1
Source:	Mouse
Immunogen:	SDS extract of human myocardium
Specificity:	Actin, Muscle Specific
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA48-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA48-10M**
Xmatrx®	**AXA48-YCD**
NanoVip™®	**AXA48-4M**
Concentrated:	**MUA48-UC, MUA48-5UC**
Recommended Positive Control:	**FG-A48M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A48M (Xmatrx & NanoVip™)**

This antibody recognizes actin of skeletal, cardiac, and smooth muscle cells. Anti-muscle specific actin recognizes both alpha and gamma isotype irrespective of all muscle groups. This antibody is not reacting with non-muscle cells such as vascular endothelial cells and connective tissues and also non-reactive to neoplastic cells of non-muscle-derived tissue such as carcinomas, melanomas, and lymphomas. It is reactive with tumors of smooth muscle (leiomyomas and leiomyosarcomas) as well as skeletal muscle (rhabdomyomas and rhabdomyosarcomas).

Actin, Smooth Muscle



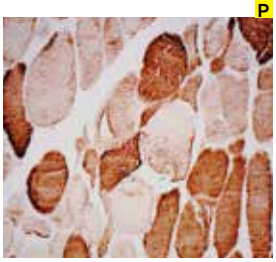
Stomach tissue stained with Anti-Smooth Muscle Anti-Actin using DAB chromogen

Clone:	1A4
Isotype:	IgG2a
Source:	Mouse
Immunogen:	Synthetic NH2 terminal decapeptide of alpha smooth muscle actin coupled to keyhole limpet hemocyanin (KLH)
Specificity:	Alpha Smooth Muscle Actin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM128-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM128-10M**
Xmatrx®	**AX128-YCD, AX128-50D**
NanoVip™®	**AX128-4M**
Concentrated:	**MU128-UC, MU128-5UC**
Recommended Positive Control:	**FG-128M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-128M(Xmatrx & NanoVip™)**

Actin is one of the two major cytoskeletal proteins. The antibody can be used to identify smooth muscle tumors. It stains leiomyomas and leiomyosarcomas but does not stain carcinomas, melanomas, lymphomas or non-smooth muscle sarcomas. It stains the muscularis and muscularis mucosa of the gastrointestinal tract, the uterine myometrium, medial layer of blood vessels, the mesenchymal components of the prostate, and myoepithelial cells of salivary glands and other organs. The antibody does not stain striated muscle such as skeletal and cardiac muscle, endothelium, connective tissue, epithelium or nerve.

Actin, Muscle-Specific



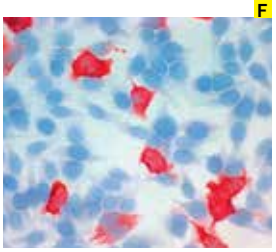
Heart muscle stained with Anti-Actin using DAB chromogen

Clone:	HHF35
Isotype:	IgG1
Source:	Mouse
Immunogen:	Homogenized human myocardium
Specificity:	Muscle-specific Actin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM090-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM090-10M**
Xmatrx®	**AX090-YCD,AX090-50D**
NanoVip™®	**AX090-4M**
Concentrated:	**MU090-UC, MU090-5UC**
Recommended Positive Control:	**FG-090M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-090M(Xmatrx & NanoVip™)**

Actin, a major component of the cytoskeleton, is a globular protein about 5 nm in diameter and is composed of one polypeptide chain with a mass of approximately 47kD. This antibody recognizes alpha actin of skeletal, cardiac and smooth muscle cells and gamma actin from smooth muscle cells. It is non-reactive with other mesenchymal cells and all epithelial cells except for myoepithelium. It can be used to stain leiomyomas, leiomyosarcomas, rhabdomyomas and rhabdomyosarcomas. This antibody labels cytoplasm in skeletal, cardiac and smooth muscle cells.

Adenovirus



Adenovirus infected tissue stained with Anti-Adenovirus using AEC chromogen

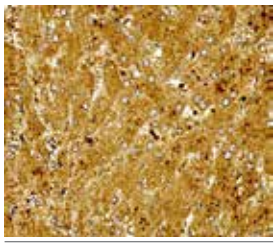
Clone:	A62020069P
Isotype:	IgG1 Kappa
Source:	Mouse
Immunogen:	Adeno 3 strain
Specificity:	Adenovirus antigen/ immunogen in frozen tissue sections or infected cell culture.
Localization:	Nuclear
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM059-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AM059-10ME**
Xmatrx®	**AX059-YCDE AX059-50DE**
NanoVip™®	**AX059-4M**
Concentrated:	**MU059-UCE, MU059-5UCE**
Recommended Positive Control:	**FG-059ME (Manual & i6000)**
Recommended Microchamber Slide:	**FB-059ME (Xmatrx&NanoVip™)**

Adenoviruses are simple DNA-containing viruses that multiply in the cell nucleus. They induce latent infections in tonsils, adenoids and other lymphoid tissue of man, causing either inapparent or limited illnesses that are followed by complete recovery and persistent type-specific immunity. Most individuals are infected with one or more adenovirus before the age of 15. Approximately 50-80% of tonsils and adenoids removed surgically show adenovirus infection. This antibody is designed for the specific immunohistochemical localization of adenovirus. Monoclonal antibodies directed against viruses allow for the rapid identification of viral infections in tissues.

Adipophilin

P



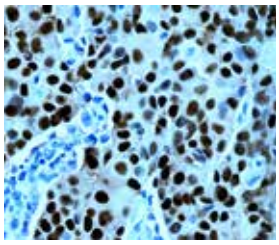
Liver tissue stained with Anti-Adipophilin using DAB Chromogen

Clone:	ADFP/1494
Isotype:	IgG2b, Kappa
Source:	Mouse
Immunogen:	Human Adipophilin
Specificity:	Adipophilin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA76-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA76-10M**
Xmatrx®	**AXA76-YCD, AXA76-50D**
NanoVip™®	**AXA76-4**
Concentrated:	**MUA76-UC, MUA76-5UC**
Recommended Positive Control:	**FG-A76M (Manual & i6000**
Recommended Microchamber Slide:	**FB-A76M (Xmatrx & NanoVip™)**

Adipophilin (ADFP, adipocyte differentiation-related protein) belongs to the perilipin family associated with lipid globule surface membranes and intracellular lipid storage droplets in various normal cells. It is a major constituent of the globule surface and involved in the development and maintenance of adipose tissue. It is present in the cytoplasm of a wide range of cultured cell lines and tissues, including fibroblasts, endothelial and epithelial cells, lactating mammary glands, the adrenal cortex, Sertoli & Leydig cells, and hepatocytes in alcoholic liver cirrhosis. Anti-Adipophilin is considered a useful marker of cytoplasmic lipids, sebocytes, and lipid accumulation, and can be used to identify sebaceous lesions and carcinomas.

ALDH1A1



Appendix tissue stained with Anti-ALDH1A1 using DAB Chromogen

Clone:	rALDH1A1/7285
Isotype:	IgG1, kappa
Source:	Mouse
Immunogen:	Human ALDH1A1
Specificity:	ALDH1A1
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522- XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD07-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD07-10M**
Xmatrx®	**AXD07-YCD, AXD07-50D**
NanoVip™®	**AXD07-4M**
Concentrated:	**MUD07-UC, MUD07-5UC**
Recommended Positive Control:	**FG-D07M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D07M (Xmatrx & NanoVip™)**

ALDH1A1 (aldehyde dehydrogenase family 1 member A1), also designated as retinal dehydrogenase 1 (RalDH1 or RALDH1), is a liver cytosolic isoform of acetaldehyde dehydrogenase belongs to the aldehyde dehydrogenase family of proteins. It is involved in alcohol metabolism pathway and also essential for conversion of retinol to retinoic acid which is very important in cell to cell signaling. ALDH1A1 is predominantly expressed in epithelium of testis, brain, liver, eye, kidney as well as neural and hematopoietic stem cells.

AFP

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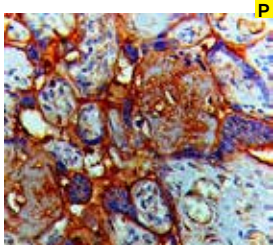

Placenta tissue stained with Anti-AFP using DAB Chromogen

Clone:	C2+C3+MBS-12
Isotype:	IgG1, Kappa
Source:	Mouse
Immunogen:	Human AFP
Specificity:	AFP
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC39-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC39-10M**
Xmatrx®	**AXC39-YCD, AXC39-50D**
NanoVip™®	**AXC39-4M**
Concentrated:	**MUC39-UC,MUC39-5UC**
Recommended Positive Control:	**FG-C39M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C39M (Xmatrx&NanoVip™)**

AFP binds to copper, nickel, billirubin and fatty acids and can found in mono-, di or trimeric forms. AFP expression is normally low in the adult except when produced by certain tumors such as hepatocellular carcinomas (HCC), teratoblastoma, pancreatic carcinoma, colorectal carcinoma, and germ cell neoplasms. Hence, AFP expression in adult tissues serves as an important marker for certain genetic and embryonic defects

ALK/CD246

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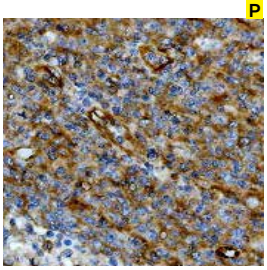

Lymphoma tissue stained with Anti-ALK/CD246 using DAB Chromogen

Clone:	ALK/1031
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Human ALK protein
Specificity:	Human ALK
Localization:	Cytoplasmic & Nuclear
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB41-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB41-10M**
Xmatrx®	**AXB41-YCD,AXB41-50D**
NanoVip™®	**AXB41-4M**
Concentrated:	**MUB41-UC,MUB41-5UC**
Recommended Positive Control:	**FG-B41(Manual&i6000)**
Recommended Microchamber Slide:	**FB-B41M(Xmatrx&NanoVip™)**

ALK Antibody also designated CD246 antibody, ALK RTK antibody, or type 1 receptor tyrosine kinase ALK antibody. This antibody recognizes a formalin-resistant epitope in both the 80 kDa NPM-ALK chimeric and the 200 kDa normal human ALK proteins. The wild-type anaplastic lymphoma kinase (ALK) protein expression is restricted to a few scattered cells in the nervous system (some glial cells and neurons, and a few endothelial cells and pericytes). The hybrid gene, NPM-ALK, formed by the chromosomal translocation encodes part of the nucleolar phosphoprotein, nucleophosmin (NPM), adhered to the cytoplasmic portion of the anaplastic lymphoma kinase (ALK) receptor tyrosine kinase.

ALK/p80

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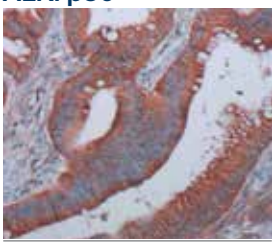

Lung tissue stained with Anti-ALK/p80 using DAB chromogen

Clone:	SP8
Isotype:	IgG
Source:	Rabbit
Immunogen:	Recombinant protein corresponding to a region which spans the tyrosine kinase catalytic domain and part of the C-terminus of the NPM-ALK transcript
Specificity:	Human ALK/p80
Localization:	Cytoplasmic and nuclear
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN770-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN770-10M**
Xmatrx®	**AY770-YCD, AY770-50D**
NanoVip™®	**AY770-4M**
Concentrated:	**NU770-UC, NU770-5UC**
Recommended Positive Control:	**FG-770N(Manual & i6000)**
Recommended Microchamber Slide:	**FB-770N (Xmatrx & NanoVip™)**

This antibody recognizes a human p80 protein, identified as a hybrid of the anaplastic lymphoma kinase (ALK) gene and the nucleophosmin (NPM) gene resulting from the t(2;5)(p23;q35) translocation found in a third of large cell lymphomas. This antibody can be used to detect p80 in these lymphomas and may also be used to detect a recently described subtype of large B cell lymphoma, which expresses the full-length ALK protein.

Alpha-1-Antichymotrypsin

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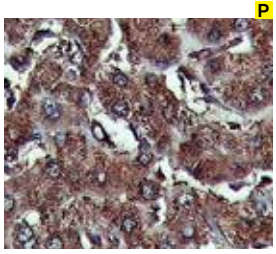


Liver tissue stained with Anti-ACT using DAB chromogen

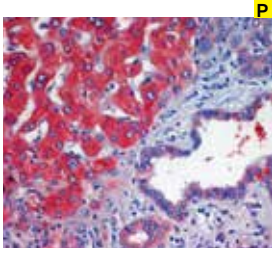
Clone:	SERPINA3/4187
Isotype:	IgG2b, kappa
Source:	Mouse
Immunogen:	Cytoplasm
Specificity:	Human Alpha-1-Antichymotrypsin
Localization:	Alpha-1-Antichymotrypsin
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC92-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC92-10M**
Xmatrx®	**AXC92-YCD,AXC92-50D**
NanoVip™®	**AXC92-4M**
Concentrated:	**MUC92-UC, MUC92-5UC**
Recommended Positive Control:	**FG-C92M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C92M (Xmatrx & NanoVip™)**

Alpha 1-ACT is a plasma protease inhibitor and also inhibits the action of neutrophil cathepsin G, mast cell chymases and pancreatic chymotrypsin. This protein has a role in immunologic and inflammatory processes, and also as a tumor marker. Its expression is seen in histiocytes and histiocytic neoplasms.

Alpha-1-Antichymotrypsin

P



Liver tissue stained with Anti-ACT using AEC chromogen

Clone:	α1A88
Isotype:	IgG1, Kappa
Source:	Mouse
Immunogen:	Biochemically purified alpha-1-antichymotrypsin protein was used to sensitize Balb/c (H-2d) mice
Specificity:	Alpha-1-Antichymotrypsin protein
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM388-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM388-10M**
Xmatrx®	**AX388-YCD,AX388-50D**
NanoVip™®	**AX388-4M**
Concentrated:	**MU388-UC, MU388-5UC**
Recommended Positive Control:	**FG-388M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-388M (Xmatrx & NanoVip™)**

Alpha-1-Antichymotrypsin (ACT) is a serine protease inhibitor. It forms a complex with serine protease, a prostate-specific antigen in human serum. ACT can be found in most cells of myeloid lineage and is, therefore, useful in the identification of neoplastic myeloid cells within extramedullary tissues such as acute myeloid leukemia. This enzyme is also localized in the spindle cells and round cells of true histiocytic lymphomas as well as in most thyroid papillary carcinomas.

Alpha-1-Antitrypsin

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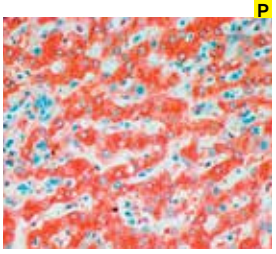


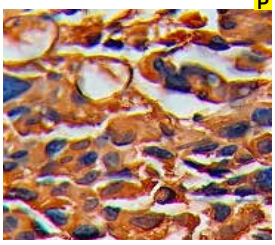
Liver tissue stained with Anti-alpha-1-Antitrypsin using AEC chromogen

Clone:	Polyclonal
Isotype:	N/A
Source:	Rabbit
Immunogen:	Human plasma
Specificity:	Alpha-1-Antitrypsin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR015-5R**
Ready-to-Use (Automated):	
***i*6000™**	**AR015-10R**
Xmatrx®	**AW015-YCD, AW015-50D AW015-4M**
NanoVip™®	**AW015-4M**
Concentrated:	**FG-015P (Manual & i6000)**
Recommended Positive Control:	**FB-015P (Xmatrx & NanoVip™)**

Alpha-1-Antitrypsin (AAT) is a 54 kD glycoprotein. Most of the anti-proteolytic enzyme activity of serum resides in this fraction. It is also found in lymph, mucus, saliva, synovial fluid, gastrointestinal tract secretions, semen, amniotic fluid and colostrum. It is a useful marker for benign and malignant hepatic neoplasms, endodermal sinus tumors, and for histiocytic differentiation in benign and malignant fibrous histiocytomas. This antibody has been absorbed with fractionated human plasma to remove contaminating antibodies. When tested by crossed immunoelectrophoresis against human plasma, a single precipitin line was observed.

Alpha-1-Antitrypsin



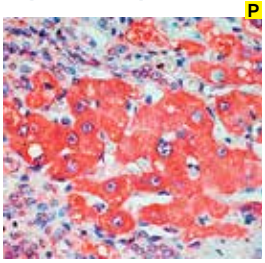
Transitional cell carcinoma tissue stained with Anti-Alpha-1-Antitrypsin using DAB Chromogen

Clone:	AAT/3167R
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human Alpha-1-Antitrypsin
Specificity:	Alpha-1-Antitrypsin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ANC33-5M**
Ready-to-Use (Automated):	
***i*6000™**	**ANC33-10M**
Xmatrx®	**AYC33-YCD,AYC33-50D**
NanoVip™®	**AYC33-4M**
Concentrated:	**NUC33-UC, NUC33-5UC**
Recommended Positive Control:	**FG-C33N(Manual & i6000)**
Recommended Microchamber Slide:	**FB-C33N (Xmatrx & NanoVip™)**

Serum Amyloid P (SAP), a member of pentraxin family, is a glycoprotein which has a characteristic pentameric organization. It is an acute phase protein, structurally related to C-reactive protein. SAP is made by hepatocytes and secreted into the blood. SAP is the single normal circulating protein that shows specific calcium-dependent binding to DNA and chromatin in physiological conditions.

Alpha-Fetoprotein (AFP)



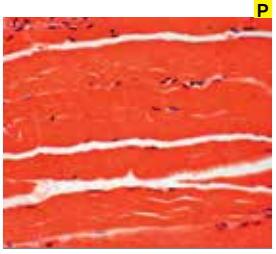
Hepatocellular carcinoma tissue stained with Anti-AFP using AEC chromogen

Clone:	C3
Isotype:	IgG 2a
Source:	Mouse
Immunogen:	Affinity-purified human Alpha-Fetoprotein
Specificity:	Alpha-Fetoprotein
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM008-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM008-10M**
Xmatrx®	**AX008-YCD,AX008-50D**
NanoVip™®	**AX008-4M**
Concentrated:	**MU008A-UC, MU008A-5UC**
Recommended Positive Control:	**FG-008M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C33N (Xmatrx & NanoVip™)**

Alpha-Fetoprotein (AFP) is a 64 kD tumor-associated embryonal antigen produced by fetal liver, hepatoma, yolk sac, and several germ cell tumors of testicular and ovarian origin. Of the germ cell tumors, only embryonal carcinoma and endodermal sinus tumors stain positive for AFP and not teratomas. The positive results are useful in distinguishing embryonal carcinoma from seminoma.

Alpha-Actinin



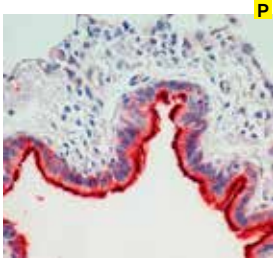
Muscle tissue stained with Anti-Alpha Actinin using AEC chromogen

Clone:	JLN20
Isotype:	IgM
Source:	Mouse
Immunogen:	Alpha-actinin isolated from chicken gizzard
Specificity:	Alpha-Actinin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM097-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM097-10M**
Xmatrx®	**AX097-YCD, AX097-50D**
NanoVip™®	**AX-97-4M**
Concentrated:	**MU097-UC, MU097-5UC**
Recommended Positive Control:	**FG-097M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-097M (Xmatrx & NanoVip™)**

Actinins are actin-binding proteins of 100 kD. Alpha-Actinin is an F-actin cross-linking protein thought to anchor actin to a variety of intracellular structures. Alpha-Actinin is found in stress fibers and adhesion plaques in non-muscle cells and in Z-discs and their homologues in muscle cells.

Alpha-Tubulin



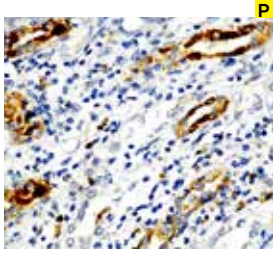
Lung tissue stained with Anti-Alpha-Tubulin using AEC chromogen

Clone:	DM-1A
Isotype:	IgG1
Source:	Mouse
Immunogen:	Alpha-Tubulin isolated from chick brain microtubules
Specificity:	Alpha-Tubulin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM121-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM121-10M**
Xmatrx®	**AX121-YCD, AX121-50D**
NanoVip™®	**AX121-4M**
Concentrated:	**MU121-UC, MU121-5UC**
Recommended Positive Control:	**FG-121M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-121M (Xmatrx & NanoVip™)**

Microtubules, along with microfilaments and intermediate filaments, form the major part of the extensive cytoplasmic network known as the cytoskeleton. The thickest of these filaments are the 20-25 nm microtubules composed of tubulin and several additional microtubule-associated proteins (MAP). Tubulin is a heterodimer composed of α-tubulin and β-tubulin. Each subunit is a 55 kD acidic protein. Tubulin assembles into the microtubule system during interphase,

AMACR



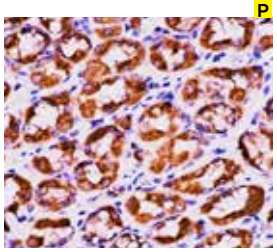
Kidney Carcinoma tissue with Anti-AMACR using DAB chromogen

Clone:	13H4
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human AMACR
Specificity:	AMACR
Localization:	Cytoplasm
Pre-treatment:	EZ-AR1
Manual/i6000:	HK521-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ANC37-5M**
Ready-to-Use (Automated):	
***i*6000™**	**ANC37-10M**
Xmatrx®	**AYC37-YCD,AYC37-50D**
NanoVip™®	**AYC37-4M**
Concentrated:	**NUC37-UC, NUC37-5UC**
Recommended Positive Control:	**FG-C37N (Manual & i6000)**
Recommended Microchamber Slide:	**FBC37N (Xmatrx & NanoVip™)**

AMACR/P504S is highly expressed in prostate, liver, and kidney carcinomas but rarely in stomach and bladder carcinomas. It is also expressed in other types of carcinoma such as breast carcinoma, pancreatic islet tumor and desmoplastic small round cell tumor. AMACR along with CKHMW and p63 may serve as a useful panel for the classification of premalignant high-grade prostatic intraepithelial neoplasia (HGPIN) and prostate adenocarcinoma.

Anti- IL-5



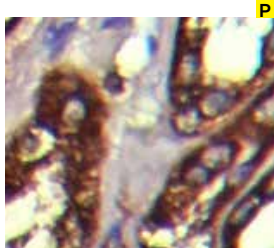
Stomach tissue stained with Anti-IL-5 using DAB chromogen

Clone:	IL5/4161
Isotype:	IgG2b, kappa
Source:	Mouse
Immunogen:	Human IL-5
Specificity:	IL-5
Localization:	extracellular / cytoplasmic
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD09-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD09-10M**
Xmatrx®	**AXD09-YCD,AXD09-50D**
NanoVip™®	**AXD09-4M**
Concentrated:	**MUD09-UC, MUD09-5UC**
Recommended Positive Control:	**FG-D09M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D09M (Xmatrx & NanoVip™)**

Interleukin-5 (IL-5), also called as T cell-replacing factor (TRF) is a T-cell derived cytokine that acts as a growth and differentiation factor for both B cells and eosinophils. It is a critical regulator for eosinopoiesis, eosinophil maturation and activation. IL-5 binds to its receptor which is a heterodimer and regulates the expression of genes required for cell proliferation, survival and maturation. JAK-STAT, Btk and Ras/Raf-ERK signalling pathways regulates the cellular functions of IL5. IL-5 is considered as a target for the treatment of eosinophilic diseases

Serum Amyloid P



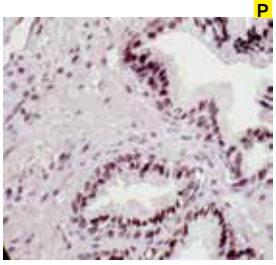
Liver Tissue stained with Anti-Serum Amyloid P using DAB Chromogen

Clone:	APCS/3240
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Human Serum Amyloid P protein
Specificity:	Human Serum Amyloid P
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA68-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA68-10M**
Xmatrx®	**AXA68-YCD,AXA68-50D**
NanoVip™®	**AXA68-4M**
Concentrated:	**MUA68-UC,MUA68-5UC**
Recommended Positive Control:	**FG-A68M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A68M (Xmatrx & NanoVip™)**

Serum Amyloid P (SAP), a member of pentraxin family, is a glycoprotein which has a characteristic pentameric organization. It is an acute phase protein, structurally related to C-reactive protein. SAP is made by hepatocytes and secreted into the blood. SAP is the single normal circulating protein that shows specific calcium-dependent binding to DNA and chromatin in physiological conditions. The avid binding of SAP displaces H1-type histones and thereby solubilizes native long chromatin, which is otherwise profoundly insoluble at the physiological ionic strength of extracellular fluids.

Androgen Receptor



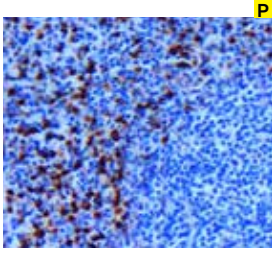
Prostate Hyperplasia tissue stained with Anti-Androgen Receptor using DAB chromogen

Clone:	F39.4.1
Isotype:	IgG1 Kappa
Source:	Mouse
Immunogen:	Synthetic peptide sequence comprising amino acids 301-320 of human androgen receptor (SP61).
Specificity:	Androgen Receptor antigen
Localization:	Nuclear&cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM256-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AM256-10ME**
Xmatrx®	**AX256-YCDE, AX256-50DE**
NanoVip™®	**AX256-4ME**
Concentrated:	**MU256-UCE, MU256-5UCE**
Recommended Positive Control:	**FG-256ME (Manual & i6000)**
Recommended Microchamber Slide:	**FB-256ME (Xmatrx & NanoVip™)**

This monoclonal antibody is specifically designed to recognize a unique immunogenic N-terminal transactivation domain of the androgen receptor that has a low degree of homology with other steroid receptors. This antibody binds to synthetic peptide SP61 of human androgen receptor. This antibody does not cross-react with human estrogen, progesterone or glucocorticoid receptor.

Annexin A1



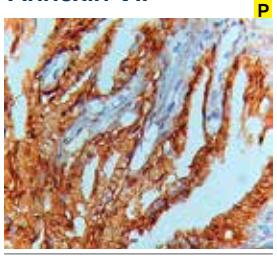
Spleen tissue with Anti-Annexin A1 using DAB Chromogen

Clone:	ANXA1/1671
Isotype:	IgG2
Source:	Mouse
Immunogen:	Human Annexin A1
Specificity:	Annexin A1
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM982-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM982-10M**
Xmatrx®	**AX982-YCD,AX982-50D**
NanoVip™®	**AX982-4M**
Concentrated:	**MU982-UC, MU982-5UC**
Recommended Positive Control:	**FG-982M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-982M (Xmatrx & NanoVip™)**

Annexin A1, also known as lipocortin I, is a protein that is encoded by the ANXA1 gene in humans. Annexin A1 belongs to the annexin family of Ca2+-dependent phospholipid-binding proteins with phospholipase A2 inhibitory activity. In resting conditions, human and mouse immune cells such as neutrophils, monocytes, and macrophages contain high levels of annexin A1 in their cytoplasm.

Annexin VII



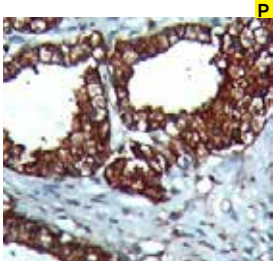
Testis tissue stained with Anti-Annexin VII using DAB Chromogen

Clone:	A-1
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human Annexin VII
Specificity:	Annexin VII
Localization:	Mem, Cyt & Nuc
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC46-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC46-10M**
Xmatrx®	**AXC46-YCD,AXC46-50D**
NanoVip™®	**AXC46-4M**
Concentrated:	**MUC46-UC, MUC46-5UC**
Recommended Positive Control:	**FG-C46M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C46M (Xmatrx & NanoVip™)**

Annexin VII expression were found in Metastatic Breast Tumors where as low expression in observed in other carcinoma types, such as Colon Adenocarcinoma or Bladder Transitional Cell Carcinoma and Prostate carcinomas. It can be used as an important prognostic biomarker for prostate carcinoma.

Annexin A1



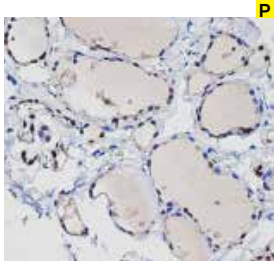
Testis tissue stained with Anti-Annexin A1 using DAB Chromogen

Clone:	ANXA1/3566
Isotype:	IgG2a, kappa
Source:	Mouse
Immunogen:	Recombinant human Annexin A1 protein
Specificity:	Annexin A1
Localization:	Nuc, Cyt & Mem
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD & HX046-08XN
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC69-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC69-10M**
Xmatrx®	**AXC69-YCD,AXC69-50D**
NanoVip™®	**AXC69-4M**
Concentrated:	**MUC69-UC, MUC69-5UC**
Recommended Positive Control:	**FG-C69M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C69M (Xmatrx & NanoVip™)**

Annexin A1, also designated as Annexin I, calpactin II, p35 and lipocortin I, is a ~ 40 kDa protein belongs to the family of Calcium-dependent phospholipid-binding proteins "Annexins". It is a pleiotrophic protein and inhibits phospholipase A2 activity which is required for the biosynthesis of the potent mediators of inflammation, prostaglandins and leukotrienes. It is expressed abundantly on peripheral blood leukocytes and the antibody to Annexin A1 is used to differentiate hairy cell leukemia from other B-cell lymphomas.

MSH2



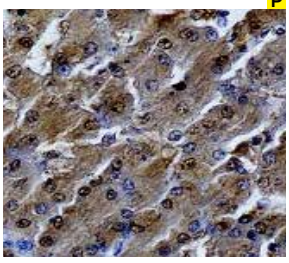
Thyroid tissue stained with Anti-MSH2 using DAB Chromogen

Clone:	D-9
Isotype:	IgG1 (kappa light chain)
Source:	Mouse
Immunogen:	Human MSH2
Specificity:	MSH2
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA23-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA23-10M**
Xmatrx®	**AXA23-YCD,AXA23-50D**
NanoVip™®	**AXA23-4M**
Concentrated:	**MUA23-UC, MUA23-5UC**
Recommended Positive Control:	**FG-A23M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A23M (Xmatrx & NanoVip™)**

MSH2 is a protein is involved in the mismatch repair process after DNA replication. It contains a DNA binding domain and two interaction domains, one for MSH3 or MSH6 (forming the MutS alpha or MutS beta complexes respectively) and the other for MutL homologs. Mutations in DNA mismatch repair genes are associated with hereditary nonpolyposis colorectal carcinoma (HNPCC). Mutations in the MSH2 and MLH1 homologs of the bacterial DNA mismatch repair genes MutS and MutL were demonstrated at high frequency in HNPCC and shown to be associated with microsatellite instability.

Arginase 1



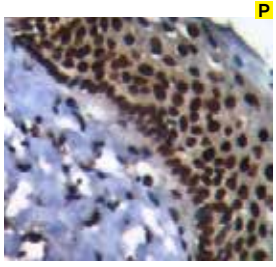
Hepatocellular carcinoma stained with Anti-Arginase 1 using DAB Chromogen

Clone:	C-2
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Human Arginase 1 protein
Specificity:	Human Arginase 1
Localization:	Nucleus & Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB81-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB81-10M**
Xmatrx®	**AXB81-YCD,AXB81-50D**
NanoVip™®	**AXB81-4M**
Concentrated:	**MUB81-UC,MUB81-5UC**
Recommended Positive Control:	**FG-B81M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B81M (Xmatrx & NanoVip™)**

Arginase 1 (also known as liver type arginase or Type 1 arginase, ARG1) is a 35-40 kDa member of the arginase family of enzymes that catalyzes the breakdown of L-arginine into ornithine and urea. It demonstrates two distinct functions: it catalyzes the conversion of arginine to ornithine and urea in the hepatocyte cytoplasm, while in multiple cells, it degrades arginine, thus indirectly downregulating Nitric Oxide synthase activity by depriving this enzyme of its substrate. It is a highly expressed cytosolic enzyme in the liver and other tissues, including the brain.

ARID1A



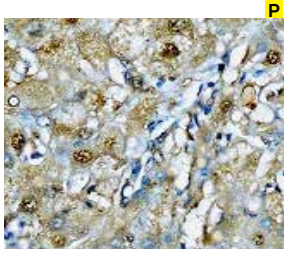
Cervix tissue stained with Anti-ARID1A using DAB Chromogen

Clone:	PSG3
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human ARID1A protein
Specificity:	ARID1A
Localization:	Nuc & Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD & HX046-08XN

Ready-to-Use (Manual):	**AMC51-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC51-10M**
Xmatrx®	**AXC51-YCD,AXC51-50D**
NanoVip™®	**AXC51-4M**
Concentrated:	**AXC51-YCD**
Recommended Positive Control:	**FG-C51M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C51M (Xmatrx & NanoVip™)**

ARID1A plays an essential role in proper germ-layer formation during gastrulation. It is also critical for ES cell pluripotency and differentiation into mesoderm-derived cardiomyocytes and adipocytes. In addition, ARID1A has been found to be frequently mutated in several carcinomas such as epithelial carcinoma, gastric carcinoma, uterine and ovarian endometrioid carcinoma and ovarian clear cell carcinoma.

ARGINASE 1



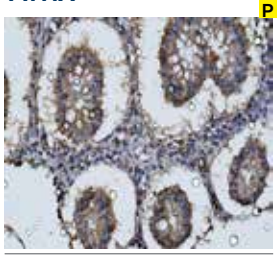
Hepatocellular carcinoma tissue stained with Anti-Arginase 1 using DAB Chromogen

Clone:	ARG1/1126
Isotype:	IgG3, kappa
Source:	Mouse
Immunogen:	Human ARGINASE 1 protein
Specificity:	Human ARGINASE 1
Localization:	cytoplasm
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC21-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC21-10M**
Xmatrx®	**AXC21-YCD,AXC21-50D**
NanoVip™®	**AXC21-4M**
Concentrated:	**MUC21-UC,MUC21-5UC**
Recommended Positive Control:	**FG-C21M (Manual & i6000)**
Recommended Microchamber Slide:	**FBC21M (Xmatrx & NanoVip™)**

Arginase 1 (also known as liver type arginase or Type 1 arginase ,ARG1) is a 35 40 kDa member of the arginase family of enzymes that catalyzes the breakdown of L-arginine into ornithine and urea. It demonstrates two distinct functions: it catalyzes the conversion of arginine to ornithine and urea in the hepatocyte cytoplasm, while in multiple cells, it degrades arginine, thus indirectly downregulating Nitric Oxide synthase activity by depriving this enzyme of its substrate. It is a highly expressed cytosolic enzyme in the liver and other tissues, including the brain.

ATRX



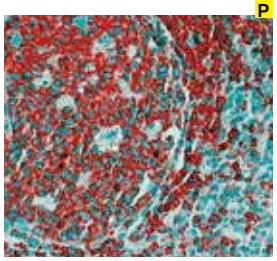
Breast carcinoma tissue stained with Anti-ATRX using DAB Chromogen

Clone:	D-7
Isotype:	IgG2a
Source:	Mouse
Immunogen:	Human ATRX
Specificity:	ATRX
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB05-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB05-10M**
Xmatrx®	**AXB05-YCD,AXB05-50D**
NanoVip™®	**AXB05-4M**
Concentrated:	**MUB05-UC,MUB05-5UC**
Recommended Positive Control:	**FG-B05M(Manual&**
Recommended Microchamber Slide:	**FB-B05M(Xmatrx&NanoVip™)**

α-thalassemia/mental retardation X-linked (ATRX) is a transcriptional regulator and helicase that belongs to the SNF2 family of chromatin remodeling proteins. Together with its binding partner death-associated protein 6 (Daxx), ATRX acts as histone chaperone to deposit histone variant H3.3 at repetitive DNA sequences such as telomeric, pericentric, and ribosomal gene repeats. It involved in transcriptional regulation and chromatin remodeling. The mutations of this gene are associated with an X-linked mental retardation (XLMR) syndrome most often accompanied by alpha-thalassemia (ATRX) syndrome. These mutations have been shown to cause diverse changes in the pattern of DNA methylation, which may provide a link between chromatin remodeling, DNA methylation, and gene expression in developmental processes.

B Cell



Tonsil tissue stained with Anti-B cell using Fast Red Chromogen

Clone:	MB2
Isotype:	IgG1
Source:	Mouse
Immunogen:	Hodgkin's lymphoma cell line DEV
Specificity:	MB2
Localization:	Cytoplasm
Pre-treatment:	EZ-AR1/EZ-AR2 elegance
Manual/i6000:	HK546-XAK/HK547-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM158-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM158-10M**
Xmatrx®	**AX158-YCD, AX158-50D**
NanoVip™®	**AX158-4M**
Concentrated:	**MU158-UC, MU158-5UC**
Recommended Positive Control:	**FG-158M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-158M (Xmatrx & NanoVip™)**

MB2 reacts with a cytoplasmic antigen present in all B cells with the exception of plasma cells. It also reacts with endothelial cells and various types of epithelial cells. MB2 shows no reaction with T lymphocytes or thymocytes. A faint staining may occur when using frozen sections containing T cells. MB2 is not suitable for immunolabeling of living or unfixed cells.

Basic Fibroblast Growth Factor

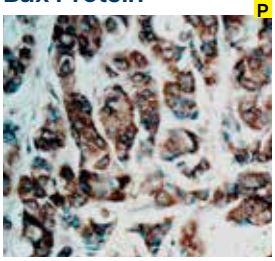
Anti-ADENOCARCINOMA tissue with Anti-bFGF using Fast Red Chromogen

Clone:	bFGF88
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Human bFGF
Specificity:	bFGF
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM359-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM359-10M**
Xmatrx®	**AX359-YCD,AX359-50D**
NanoVip™®	**AX359-4M**
Recommended Positive Control:	**FG-359M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-359M (Xmatrx & NanoVip™)**

MB2 reacts with a cytoplasmic antigen present in all B cells with the exception of plasma cells. It also reacts with endothelial cells and various types of epithelial cells. MB2 shows no reaction with T lymphocytes or thymocytes. A faint staining may occur when using frozen sections containing T cells. MB2 is not suitable for immunolabeling of living or unfixed cells.

Bax Protein



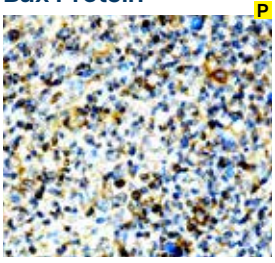
Breast carcinoma tissue stained with Anti-Bax Protein using DAB chromogen

Clone:	Polyclonal
Source:	Rabbit
Immunogen:	A synthetic peptide encompassing a unique epitope at the amino terminus of human Bax protein coupled to Keyhole Limpet Hemocyanin (KLH)
Specificity:	Bax protein
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR347-5R**
Ready-to-Use (Automated):	
***i*6000™**	**AR347-10R**
Xmatrx®	**AW 347-YCD, AW347-50D**
NanoVip™®	**AW347-4M**
Concentrated:	**PU347-UP, PU347-5UP**
Recommended Positive Control:	**FG-347P (Manual & i6000)**
Recommended Microchamber Slide:	**FB-347P (Xmatrx & NanoVip™)**

Bax protein is identified as a promoter of apoptosis. The override of apoptotic control is suspected to cause or contribute to some forms of carcinogenesis. This antibody will detect the α, β , and d isoforms of Bax protein.

Bax Protein



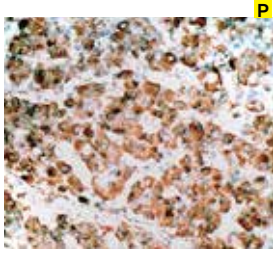
Hodgkin's Lymphoma tissue with Anti-Bax Protein using DAB chromogen

Clone:	2D2
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human Bax Protein
Specificity:	Bax protein
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA96-5R**
Ready-to-Use (Automated):	
***i*6000™**	**AMA96-10R**
Xmatrx®	**AXA96-YCD, AXA96-50D**
NanoVip™®	**AXA96-4M**
Concentrated:	**MUA96-UP, MUA96-5UP**
Recommended Positive Control:	**FG-A96M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A96M (Xmatrx & NanoVip™)**

Overexpression of Bax accelerates apoptotic death induced by cytokine deprivation in an IL-3 dependent cell line and Bax also counters the death repressor activity of Bcl-2. It recognizes a protein of 21kDa, identified as the Bax protein. This shows no cross-reaction with Bcl-2 or Bcl-X protein. Bax has extensive amino acid homology with Bcl-2 and it homodimerizes and forms heterodimers with Bcl-2. Overexpression of Bax accelerates apoptotic death induced by cytokine deprivation in an IL-3 dependent cell line, and Bax also counters the death repressor activity of Bcl-2.

ACTH



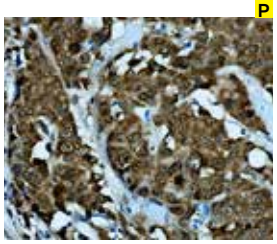
Colon carcinoma tissue stained with Anti-ACTH using DAB Chromogen

Clone:	O2A3
Isotype:	IgG1, kappa
Source:	Mouse
Immunogen:	Human ACTH
Specificity:	ACTH
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD55-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD55-10M**
Xmatrx®	**AXD55-YCD,AXD55-50D**
NanoVip™®	**AXD55-4M**
Concentrated:	**MUD55-UC, MUD55-5UC**
Recommended Positive Control:	**FG-D55M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D55M (Xmatrx & NanoVip™)**

ACTH, also known as corticotropin, is a 39 amino acid active peptide that stimulates the secretion of cortisol by the adrenal gland. ACTH is often produced in response to biological stress which is produced and secreted by the anterior pituitary gland. It is an important component of the hypothalamic-pituitary-adrenal axis. Its principal effects are increased production of androgens and, as its name suggests, cortisol from the adrenal cortex. Ab-1 is excellent for staining of routine formalin-fixed, paraffinembedded tissues. It labels corticotrophs in the adenohypophysis and is useful in the classification of pituitary adenomas.

Aurora B



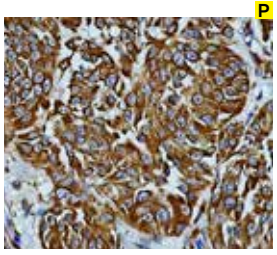
Colon carcinoma tissue stained with Anti-Aurora B using DAB chromogen

Clone:	AURKB/1521
Isotype:	IgG1, kappa
Source:	Mouse
Immunogen:	Human Aurora B
Specificity:	Aurora B
Localization:	Nuclear
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD18-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD18-10M**
Xmatrx®	**AXD18-YCD,AXD18-50D**
NanoVip™®	**AXD18-4M**
Concentrated:	**MUD18-UC, MUD18-5UC**
Recommended Positive Control:	**FG-D18M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D18M (Xmatrx & NanoVip™)**

Aurora B is a 39kDa serine/threonine kinase which is the enzymatic core of the Chromosomal Passenger Complex (CPC) required for chromosome alignment/segregation during mitotic and meiosis events. Aurora B forms a complex with non-enzymatic subunits of CPC known as the inner centromere protein (INCENP), survivin and borealin. These complexes play a critical role in accurate chromosome alignment and segregation, histone modification, protein localization to the centromere and kinetochore, cytokinesis, proper microtubule-kinetochore attachment and regulation of the mitotic check point.

BRAF (V600E)



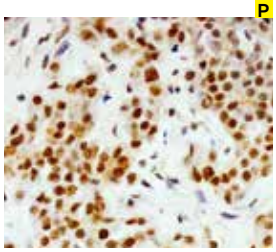
Colon Carcinoma tissue stained with Anti-BRAF (V600) using DAB Chromogen

Clone:	V600E/1321
Isotype:	IgG1, kappa
Source:	Mouse
Immunogen:	Human BRAF (V600E)
Specificity:	BRAF (V600E)
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD49-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD49-10M**
Xmatrx®	**AXD49-YCD,AXD49-50D**
NanoVip™®	**AXD49-4M**
Concentrated:	**MUD49-UC, MUD49-5UC**
Recommended Positive Control:	**FG-D49M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D49M (Xmatrx & NanoVip™)**

ACTH, also known as corticotropin, is a 39 amino acid active peptide that stimulates the secretion of cortisol by the adrenal gland. ACTH is often produced in response to biological stress which is produced and secreted by the anterior pituitary gland. It is an important component of the hypothalamic-pituitary-adrenal axis. Its principal effects are increased production of androgens and, as its name suggests, cortisol from the adrenal cortex. Ab-1 is excellent for staining of routine formalin-fixed, paraffinembedded tissues. It labels corticotrophs in the adenohypophysis and is useful in the classification of pituitary adenomas.

BAP1



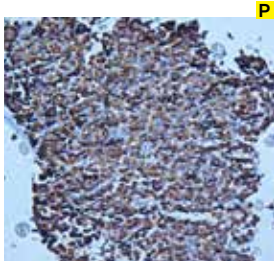
Breast carcinoma tissue stained with Anti-BAP1 using DAB Chromogen.

Clone:	BAP1/8959R
Isotype:	IgG1, kappa
Source:	Rabbit
Immunogen:	Human BAP1
Specificity:	BAP1
Localization:	Nuclear
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AND45-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AND45-10M**
Xmatrx®	**AYD45-YCD,AYD45-50D**
NanoVip™®	**AYD45-4M**
Concentrated:	**NUD45-UC, NUD45-5UC**
Recommended Positive Control:	**FG-D45N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D45N (Xmatrx & NanoVip™)**

BAP1 (BRCA1-Associated Protein 1) is an 80 kDa deubiquitinating enzyme that belongs to the ubiquitin C-terminal hydrolase (UCH) family of deubiquitin enzymes (DUBs). It is involved in the removal of ubiquitin from proteins and helps in regulate diverse cellular processes such as transcription, DNA-damage response, cell cycle progression, chromatin dynamics and DNA synthesis. Additionally, BAP1 can function both as tumor suppressor and metastasis suppressor. Mutations in BAP1 have been identified in aggressive mesotheliomas, uveal melanoma and cutaneous melanoma, clear cell renal cell carcinoma and bladder tumours.

BCA-225



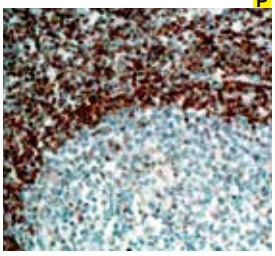
Breast carcinoma tissue with Anti-BCA-225 using DAB Chromogen

Clone:	Cu-18
Isotype:	IgG1/K
Source:	Mouse
Immunogen:	Human BCA-225
Specificity:	BCA-225
Localization:	Cytoplasm
Pre-treatment:	EZ-AR1 Elegance
Manual/i6000:	HK521-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM968-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM968-10M**
Xmatrx®	**AX968-YCD, AX968-50D**
NanoVip™®	**AX968-4M**
Concentrated:	**MU968-UC, MU968-5UC**
Recommended Positive Control:	**FG-968M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-968M (Xmatrx & NanoVip™)**

BCA-225 Breast carcinoma associated glycoprotein 225, or BCA-225, has been identified exclusively in breast carcinomas and certain adenocarcinomas, as one of the biomarkers. Unlike other identified proteins, monoclonal antibodies for BCA-225 (clonesCU18, CU26, and CU46) show no cross reactivity with lactating mammary glands and with gastrointestinal malignancies. This restricted distribution and frequency in breast carcinomas gives BCA-225 considerable clinical significanc in diagnosis and treatment of breast and other adenocarcinomas.

Bcl-2 Oncoprotein



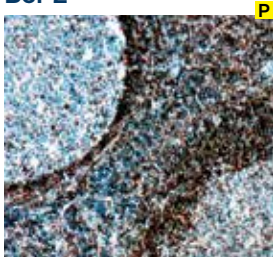
Tonsil tissue stained with Anti-Bcl-2 using DAB chromogen

Clone:	bcl-2/100
Isotype:	IgG1 kappa
Source:	Mouse
Immunogen:	Synthetic peptide comprising residues 41-54 of Bcl-2 oncoprotein-3
Specificity:	Bcl-2 protein
Localization:	Cytoplasm
Pre-treatment:	EZ-AR1/EZ-AR2 elegance
Manual/i6000:	HK546-XAK/HK547-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM287-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM287-10M**
Xmatrx®	**AX287-YCD, AX287-50D**
NanoVip™®	**AX287-4M**
Recommended Positive Control:	**FG-287M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-287M (Xmatrx & NanoVip™)**

The Bcl-2 is an integral inner mitochondrial membrane protein and is frequently overexpressed in many lymphoid malignancies. Immunohistologic studies have demonstrated that staining for Bcl-2 protein can be used to distinguish neoplastic germinal centers from reactive ones.

Bcl-2



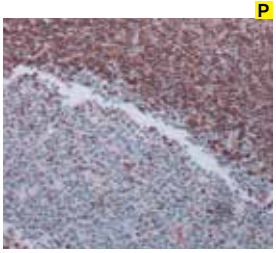
Tonsil tissue stained with Anti-Bcl-2 using DAB chromogen

Clone:	EP36
Isotype:	IgG1
Source:	Rabbit
Immunogen:	BCl-2
Specificity:	BCl-2
Localization:	Cytoplasm
Pre-treatment:	EZ-AR1 elegance
Manual/i6000:	HK546-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AN723-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN723-10M**
Xmatrx®	**AY723-YCD, AY723-50D**
NanoVip™®	**AY723-4M**
Concentrated:	**NU723-UC, NU723-5UC**
Recommended Positive Control:	**FG-723N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-723N (Xmatrx & NanoVip™)**

Bcl-2 (B-cell lymphoma 2), encoded in humans by the Bcl-2 gene, is the founding member of the Bcl-2 family of regulator proteins that regulate cell death, by either inducing it (pro-apoptotic) it or inhibiting it (anti-apoptotic). Bcl-2 is specifically considered as an important anti-apoptotic protein and is thus classified as an oncogene. Over expression of Bcl-2 has been shown to promote cell survival by suppressing apoptosis. It has been documented that Bcl-2 becomes deregulated in tumor cells as a result of translocation into the immunoglobulin heavy-chain locus and is therefore activated in B cell malignancies. Bcl-2 is useful in differentiation of follicular lymphoma from reactive follicular proliferation (Bcl-2 negative).

Bcl-2 Alpha



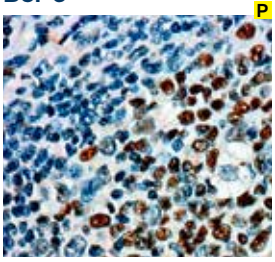
Tonsil stained with Anti-Bcl-2 Alpha using DAB chromogen

Clone:	SP66
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to N-terminus of human Bcl-2 Alpha
Specificity:	Human Bcl-2 Alpha
Localization:	Membrane
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN758-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN758-10M**
Xmatrx®	**AY758-YCD, AY758-50D**
NanoVip™®	**AY758-4M**
Concentrated:	**NU758-UC, NU758-5UC**
Recommended Positive Control:	**FG-758N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-758N (Xmatrx & NanoVip™)**

Expression of Bcl-2 alpha oncoprotein inhibits the programmed cell death (apoptosis). In most follicular lymphomas, neoplastic germinal centers express high levels of Bcl-2 alpha protein, whereas the normal or hyperplastic germinal centers are negative. Bcl-2 is useful in differentiation of follicular lymphoma from reactive follicular proliferation (Bcl-2 negative). In addition, Bcl-2 has been shown to be correlated with disease prognosis in breast carcinoma, prostate carcinoma and ovarian carcinoma.

Bcl-6



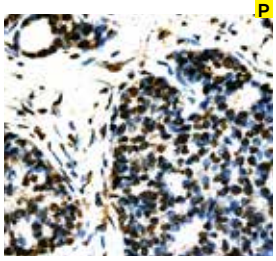
Tonsil tissue stained with Anti-Bcl-6 using DAB chromogen

Clone:	LN22
Isotype :	IgG
Source:	Mouse
Immunogen:	Bcl-6
Specificity:	Bcl-6
Localization:	Nuclear
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM708-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM708-10M**
Xmatrx®	**AX708-YCD,AX708-50D**
NanoVip™®	**AX708-4M**
Concentrated:	**MU708-UC, MU708-5UC**
Recommended Positive Control:	**FG-708M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-708M (Xmatrx & NanoVip™)**

Anti-Bcl-6 is a transcriptional regulator gene which codes for a 706 amino acid nuclear zinc finger protein. This antibody reacts with Bcl-6 gene product in follicular lymphomas, diffuse large B-cell lymphomas, Burkitt's lymphomas and in nodular lymphocyte predominant Hodgkin's disease. The antibody gives a strong nuclear labeling of Bcl-6 protein in follicular lymphomas, diffuse large B-cell lymphomas, Burkitt's lymphomas and nodular, lymphocyte predominant Hodgkin's disease. Bcl-6 is not expressed in B-CLL, hairy cell leukemia, mantle and marginal-zone derived lymphomas.

BCR-ABL



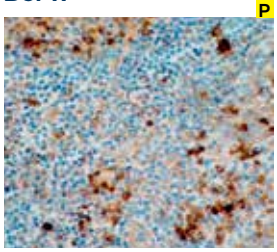
Liver carcinoma tissue stained with Anti-BCR-ABL using DAB chromogen

Clone:	7C6
Isotype:	IgG
Source:	Mouse
Immunogen:	Bcr686 thyroglobulin conjugate corresponding to human BCR sequence 686-696 (SSINEEITPRRQS)
Specificity:	Human and mouse BCR-ABL
Localization:	Nucleus
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM903-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AM903-10ME**
Xmatrx®	**AX903-YCDE,AX903-50DE**
NanoVip™®	**AX903-4ME**
Concentrated:	**MU903-UCE, MU903-5UCE**
Recommended Positive Control:	**FG-903ME (Manual & i6000)**
Recommended Microchamber Slide:	**FB-903M (Xmatrx & NanoVip™)**

Translocation between chromosomes 9 and 22 lead to the formation of the Philadelphia chromosome which contain the BCR-ABL fusion gene found in most patients with Chronic Myeloid Leukemia (CML) and some patients with Acute Lymphoblastic leukemia (ALL) or Acute Myelogenous Leukemia (AML). The BCR-ABL oncoprotein which exhibits constitutively activated tyrosine kinase function is responsible for the pathogenesis of CML.

Bcl-x



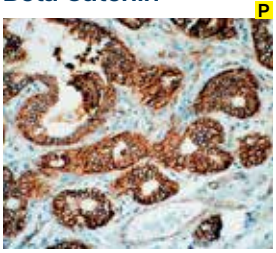
Tonsil tissue stained with Anti-Bcl-X using DAB chromogen

Clone:	EP94
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues in human Bcl-x protein
Specificity:	Human Bcl-x
Localization:	Membrane
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN819-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN819-10M**
Xmatrx®	**AY819-YCD, AY819-50D**
NanoVip™®	**AY819-4M**
Concentrated:	**NU819-UC, NU819-5UC**
Recommended Positive Control:	**FG-819N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-819N (Xmatrx & NanoVip™)**

Bcl-X, or bcl-2-like 1 protein, a member of the bcl-2 protein family, inhibits cell death or apoptosis and functions as a regulator of apoptosis. Bcl-X has two isoforms: Bcl-XL (Long), a 241-amino acid protein; and Bcl-XS (Short), a 178-amino acid protein lacking a 63-amino acid domain that is well conserved among members of the bcl-2 family. Bcl-X is typically present in the cytosol in association with the mitochondrial membrane.Bcl-x is expressed in many types of cell including lymphocytes, neuronal cells, and epithelial cells. In tumors, a high level of Bcl-x has been found in Reed Sternberg cells in Hodgkin's disease.

Beta Catenin



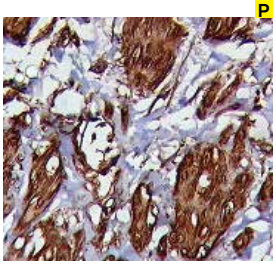
Breast stained with Anti-Beta Catenin using DAB chromogen

Clone:	EP35
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic phospho-peptide corresponding to residues near N-terminus of human Beta Catenin protein
Specificity:	Human Beta Catenin
Localization:	Nuclear and cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN778-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN778-10M**
Xmatrx®	**AY778-YCD, AY778-50D**
NanoVip™®	**AY778-4M**
Concentrated:	**NU778-UC, NU778-5UC**
Recommended Positive Control:	**FG-778N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-778N (Xmatrx & NanoVip™)**

Beta-Catenin is a key regulatory protein involved in cell adhesion and signal transduction through the Wnt pathway, and plays important roles in development, cellular proliferation, and differentiation. Mutations of this gene are commonly found in a variety of carcinomas: in primary hepatocellular carcinoma, colorectal carcinoma, ovarial carcinoma, breast carcinoma, lung carcinoma and glioblastoma. Mutations in the Beta-Catenin gene CTNNB1 leading to stabilization of Beta-Catenin in the cytoplasm and translocation to the nucleus have been implicated in various forms of tumor including familial adenomatous polyposis, fibromatosis, solitary fibrous tumors and endometrial carcinoma.

β-Actin



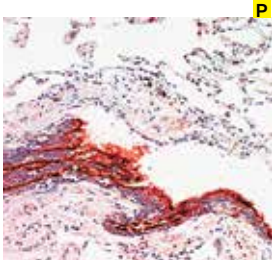
Abdomen tissue stained with Anti-β-Actin using DAB Chromogen

Clone:	C4
Isotype:	IgG1, kappa
Source:	Mouse
Immunogen:	Human β-Actin
Specificity:	β-Actin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC65-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AMC65-10ME**
Xmatrx®	**AXC65-YCDE,AXC65-50DE**
NanoVip™®	**AXC65-4M**
Concentrated:	**MUC65-UCE, MUC65-5UCE**
Recommended Positive Control:	**FG-C65M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C65M (Xmatrx & NanoVip™)**

β-Actin (or Beta actin) is one of six isoforms of actin which is present in all human cell types. It is a non-muscle cytoskeletal protein involved in cell motility, structure, and integrity. β-Actin are globular proteins coexist with β-actin as components of the cyto-skeleton in the cytoplasm of all eukaryotic cells. A mutation of beta-actin that alters depolymerization dynamics is associated with autosomal dominant developmental malformations, dystonia and deafness.

Beta-Tubulin



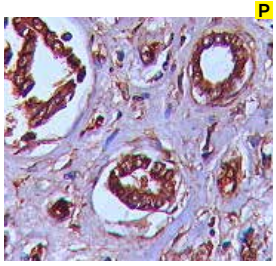
Lung tissue stained with Anti-Beta Tubulin using AEC chromogen

Clone:	DM-1B
Isotype:	IgG1 kappa
Source:	Mouse
Immunogen:	Beta-tubulin isolated from chick brain microtubules
Specificity:	Beta-Tubulin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR1/EZ-AR2 elegance
Manual/i6000:	HK546-XAK/HK547-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM122-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM122-10M**
Xmatrx®	**AX122-YCD,AX122-50D**
NanoVip™®	**AX122-4M**
Concentrated:	**MU122-UC, MU122-5UC**
Recommended Positive Control:	**FG-122M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-122M (Xmatrx & NanoVip™)**

Microtubules, along with microfilaments and intermediate filaments, form the major part of the extensive cytoplasmic network known as the cytoskeleton. The thickest of these filaments are the 20-25 nm microtubules composed of tubulin and several additional microtubule-associated proteins (MAP). Tubulin is a heterodimer composed of α-tubulin and ß-tubulin. Each subunit is a 55 kD acidic protein. Tubulin assembles into the microtubule system during interphase, then reassembles into the mitotic spindle during cell division.

β-Amyloid



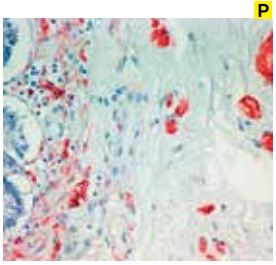
Kidney carcinoma tissue stained with Anti-β-Amyloid using DAB Chromogen

Clone:	B-4
Isotype:	IgG2a
Source:	Mouse
Immunogen:	Human β-Amyloid
Specificity:	β-Amyloid
Localization:	Cyt & Mem
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC27-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC27-10M**
Xmatrx®	**AXC27-YCD, AXC27-50D**
NanoVip™®	**AXC27-4M**
Concentrated:	**MUC27-UC, MUC27-5UC**
Recommended Positive Control:	**FG-C27M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C27M (Xmatrx & NanoVip™)**

Beta amyloid (also known as Amyloid β or Aβ) is a 40–43 amino acid peptide cleaved from transmembrane amyloid precursor protein (APP) by proteases, beta-secretase (BACE-1) and gamma-secretase. Cleaved Aβ peptides [1-40], [1-42], [1-43] are extracellularly accumulated to form aggregates, insoluble oligomers and protofibrils called as neuritic plaques. The neuritic plaques are found in the brains of patients with Alzheimer's disease (AD) and research indicates that intraneuronal beta amyloid accumulation may be an important proximal neurotoxic event in the pathogenesis of Alzheimer's disease.

Beta-Tubulin II



Colon tissue stained with Anti-Beta Tubulin II using AEC chromogen

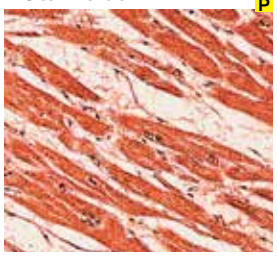
Clone:	JDR3B8
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Cys-Glu-Gly-Glu-Glu-Asp-Glu-Ala-OH synthetic peptide conjugated with BSA.
Specificity:	ß-Tubulin II
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM176-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM176-10M**
Xmatrx®	**AX176-YCD, AX176-50D**
NanoVip™®	**AX176-4M**
Concentrated:	**MU176-UC, MU176-5UC**
Recommended Positive Control:	**FG-176M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-176M (Xmatrx & NanoVip™)**

Microtubules play critical roles in a variety of cellular processes, such as mitosis, intracellular transport, ciliary and flagellar motility, and maintenance of cell shape. The structural subunit of microtubules, the 100 kD protein tubulin, is a heterodimer of two 50 kD subunits designated alpha and beta. Both alpha and beta occur as numerous isotypes which differ from each other in their amino acid sequences and tissue distribution. The majority of the differences among the isotypes cluster in the C-terminal, a region where the microtubule-associated proteins (MAPs) bind to tubulin. This antibody stains ß-tubulin in cytoplasm of neuroepithelial cells and other positive cells.

Beta-Tubulin III

P



Heart muscle stained with Anti-Beta Tubulin III using DAB chromogen

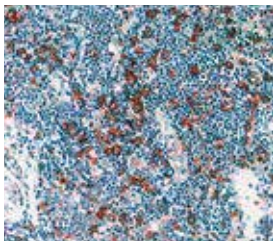
Clone:	SDL3D10
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Cys-Glu-Ser-Glu-Ser-Glu-Gln-Gly-Pro-Lys-OH synthetic peptide conjugated with BSA.
Specificity:	ß-Tubulin III
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM177-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM177-10M**
Xmatrx®	**AX177-YCD, AX177-50D**
NanoVip™®	**AX177-4M**
Concentrated:	**MU177-UC, MU177-5UC**
Recommended Positive Control:	**FG-177M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-177M (Xmatrx & NanoVip™)**

Microtubules play critical roles in a variety of cellular processes, such as mitosis, intracellular transport, ciliary and flagellar motility, and maintenance of cell shape. The structural subunit of microtubules, the 100 kD protein tubulin, is a heterodimer of two 50 kD subunits designated alpha and beta. Both alpha and beta occur as numerous isotypes which differ from each other in their amino acid sequences and tissue distribution.

B Lymphocyte Antigen 36 (BLA.36)

P



Hodgkin tissue stained with Anti-BLA.36 using DAB chromogen

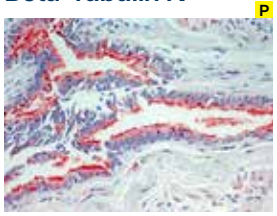
Clone:	A27-42
Isotype:	IgG3
Source:	Mouse
Immunogen:	Hodgkin's cell line HDLM-3
Specificity:	BLA.36 antigen
Localization:	Membrane
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM231-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM231-10M**
Xmatrx®	**AX231-YCD, AX231-50D**
NanoVip™®	**AX231-4M**
Concentrated:	**MU231-UC, MU231-5UC**
Recommended Positive Control:	**FG-231M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-231M (Xmatrx & NanoVip™)**

BLA.36 is a developmentally regulated 36 kD antigen expressed on the plasma membrane of B lymphocytes, Reed-Sternberg, and mononuclear Hodgkin's cells. The anti-BLA.36 antibody recognizes all four subtypes of Hodgkin's disease. It also gives strong staining of B cell lymphomas including follicular center cell lymphomas (large and small cell types), mantle zone lymphomas, and immunoblastic lymphomas. No reactivity of anti-BLA.

Beta-Tubulin IV

P



LUNG tissue stained with Anti-Beta-Tubulin IV using DAB chromogen

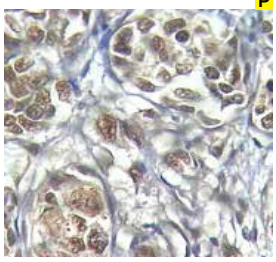
Clone:	ONS1A6
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human Beta-Tubulin IV
Specificity:	Beta-Tubulin IV
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM178-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM178-10M**
Xmatrx®	**AX178-YCD, AX178-50D**
NanoVip™®	**AX178-4M**
Concentrated:	**MU178-UC, MU178-5UC**
Recommended Positive Control:	**FG-178M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-178M (Xmatrx & NanoVip™)**

Microtubules play critical roles in a variety of cellular processes, such as mitosis, intracellular transport, ciliary and flagellar motility, and maintenance of cell shape. The structural subunit of microtubules, the 100 kD protein tubulin, is a heterodimer of two 50 kD subunits designated alpha and beta. Both alpha and beta occur as numerous isotypes which differ from each other in their amino acid sequences and tissue distribution. The majority of the differences among the isotypes cluster in the C-terminal, a region where the microtubule-associated proteins (MAPs) bind to tubulin.

Brg-1

P



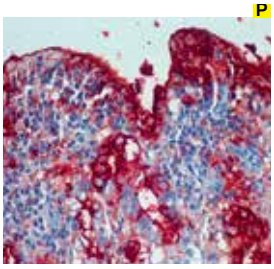
Breast carcinoma tissue stained with Anti-Brg-1 using DAB Chromogen

Clone:	G-7
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human Brg-1 protein
Specificity:	Human Brg-1
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB49-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB49-10M**
Xmatrx®	**AXB49-YCD, AXB49-50D**
NanoVip™®	**AXB49-4M**
Concentrated:	**MUB49-UC, MUB49-5UC**
Recommended Positive Control:	**FG-B49M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B49M (Xmatrx & NanoVip™)**

Brg1 (Brahma-related gene 1) also known as SMARCA4 (Swi/SNF-related matrix-associated actin-dependent regulator of chromatin, subfamily A, member 4), SNF2L4 and SNF2 beta, is a 205 kDa nuclear-localized chromatin remodeling ATPase that may both facilitate and inhibit gene transcription. It plays a crucial role in the regulation of gene transcription during early mammalian embryogenesis. In addition, Brg1 is also involved in cell growth arrest, senescence and tumor suppression

Blood Group Antigen Lewis B



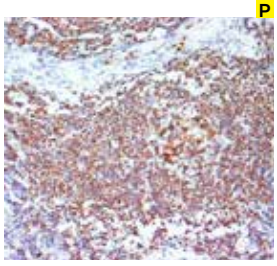
Intestine tissue stained with Anti-Blood group Lewis B antibody using AEC chromogen

Clone:	2-25LE
Isotype:	IgG1
Source:	Mouse
Immunogen:	Mucin isolated from ovarian cyst fluid
Specificity:	Blood Group Antigen Lewis B
Localization:	Cytoplasm and Membrane
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM304-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM304-10M**
Xmatrx®	**AX304-YCD, AX304-50D**
NanoVip™®	**AX304-4M**
Concentrated:	**MU304-UC, MU304-5UC**
Recommended Positive Control:	**FG-304M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-304M (Xmatrx & NanoVip™)**

Lewis blood group antigens are carbohydrate moieties structurally integrated in mucous secretions. Lewis antigen system alterations have been described in gastric carcinoma and associated lesions. Anomalous expression of Lewis B antigen has been found in some non-secretory gastric carcinomas and colorectal carcinomas. This antibody will stain Lewis B antigen in formalin-fixed, paraffin-embedded tissues. A panel of antibodies to Lewis antigens, including Lewis A, Lewis B and sialylated Lewis A, is useful in the immunopathological analysis of gastric carcinomas.

BOB-1



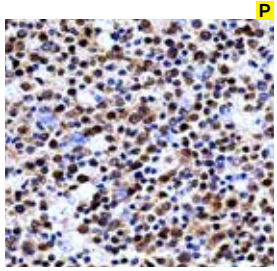
Lymph node stained with Anti-BOB-1 using with DAB chromogen

Clone:	SP92
Isotype:	IgG
Source:	Rabbit
Immunogen:	-
Specificity:	BOB-1
Localization:	Cell membrane
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN957-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AN957-10ME**
Xmatrx®	**AY957-50DE, AY957-YCDE**
NanoVip™®	**AY957-4M**
Concentrated:	**NU957-UCE, NU957-5UCE**
Recommended Positive Control:	**FG-957NE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-957NE (Xmatrx & NanoVip™)**

The BOB-1 / OBF-1 / OCA-B protein is a B cell-specific co-activator of the Oct1 and Oct2 transcription factors. BOB-1 facilitates transactivation of immunoglobulins and other B-cell specific genes through the binding and activation of the transcription factors Oct-1 and Oct-2. Expression of BOB-1/OBF-1 is restricted largely to mature B-cells. In pathological conditions such as classical Hodgkin's disease, loss of BOB-1 expression is thought, in part, to contribute to the defect in immunoglobulin gene expression by Hodgkin and Reed Sternberg cells. Expression of BOB.

BOB-1



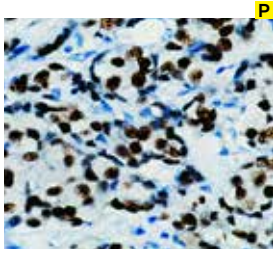
Tonsil tissue stained with Anti-BOB-1 using DAB Chromogen

Clone:	TG14
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Human BOB-1 protein
Specificity:	Human BOB-1
Localization:	Nucleus/Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB59-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB59-10M**
Xmatrx®	**AXB59-YCD, AXB59-50D**
NanoVip™®	**AXB59-4M**
Concentrated:	**MUB59-UC, MUB59-5UC**
Recommended Positive Control:	**FG-B59M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B59M (Xmatrx & NanoVip™)**

B cell specific Octamer Binding protein-1 is a Coactivator of OCT-2. It appears to mediate antigen-dependent germinal center formation. BOB1 is recommended for use as part of a panel of antibodies to aid in the differentiation of malignancies of B cell origin. BOB.1 expression in a variety of established B-cell lines, represents different stages of B-cell development has shown a Bcell-specific expression pattern. LP cells in nodular lymphocyte that are predominant Hodgkin lymphoma their germinal centerderived are consistently immune positive for BOB.1. Some cases of classical Hodgkin lymphoma show BOB.1 immune-reactivity with the Hodgkin and Reed-Sternberg cells. Expression of BOB.

Brachyury



Tonsil Tissue stained with Anti-Brachyury using DAB Chromogen

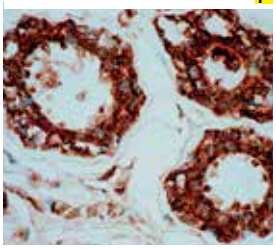
Clone:	A-4
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Human Brachyury protein
Specificity:	Human Brachyury
Localization:	Nucleus
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC14-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC14-10M**
Xmatrx®	**AXC14-YCD, AXC14-50D**
NanoVip™®	**AXC14-4M**
Concentrated:	**MUC14-UC, MUC14-5UC**
Recommended Positive Control:	**FG-C14M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C14M (Xmatrx & NanoVip™)**

Brachyury, also designated TBXT antibody, or T-box transcription factor T antibody, is an embryonic nuclear transcription factor that is vital for the formation of posterior mesoderm and axial development during vertebrate embryogenesis. It is required in the early determination and differentiation of mesoderms and is an important factor in promoting the epithelial-mesenchymal transition (EMT). The protein is localized to notochord-derived cells and it has been identified as a definitive diagnostic marker of chordoma, a malignant tumor that arises from remnant notochordal cells lodged in the vertebrae.

BRCA1 Protein

P



Anti-BRCA1 positivity in recurrent tumor using DAB chromogen

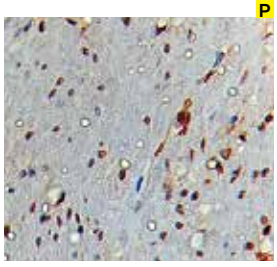
Clone:	Polyclonal
Source:	Rabbit
Immunogen:	A synthetic peptide encompassing a unique epitope within the carboxyl terminal domain of human BRCA1 coupled to Keyhole Limpet Hemocyanin.
Specificity:	BRCA1
Localization:	Nucleus and Cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR345-5R**
Ready-to-Use (Automated):	
***i*6000™**	**AR345-10R**
Xmatrx®	**AW345-YCD, AW345-50D**
NanoVip™®	**AW345-4M**
Concentrated:	**PU345-UP, PU345-5UP**
Recommended Positive Control:	**FG-345P (Manual & i6000)**
Recommended Microchamber Slide:	**FB-345P (Xmatrx & NanoVip™)**

The BRCA1 gene was discovered as a region on chromosome 17q21 that has a high frequency of mutation in families predisposed to breast carcinoma. Specific mutations and variability in expression have been identified and characterized, including the founder mutation 185delAG in Askenazi Jewish families. BRCA1 functions as a tumor suppressor by mechanisms not yet understood. It has recently been suggested that BRCA1 might induce apoptosis similar to the gatekeeper function of the p53 tumor suppressor.

BrdU

P



Intestine tissue stained with Anti-BrdU using DAB Chromogen

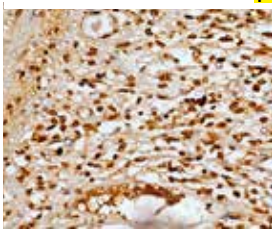
Clone:	BU20a
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human BrdU protein
Specificity:	BrdU
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC41-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC41-10M**
Xmatrx®	**AXC41-YCD, AXC41-50D**
NanoVip™®	**AXC41-4M**
Concentrated:	**MUC41-UC, MUC41-5UC**
Recommended Positive Control:	**FG-C41M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C41M (Xmatrx & NanoVip™)**

BrdU (Bromodeoxyuridine, 5?-Bromo-2-deoxyuridine) is a uridine derivative and synthetic nucleoside thymidine analogue that is incorporated into newly synthesized DNA strands of S-phase cells substituting for thymidine. The uptake of BrdU during the cell division is a reliable method for monitoring cell proliferation and progression through S phase of the cell cycle. BrdU displays nuclear staining and is used to observe the multiplication of tumor cells and other tissues in vivo.

BrdU

P



Colon tissue with Anti-BrdU using DAB chromogen

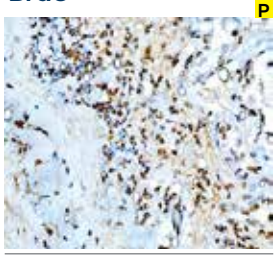
Clone:	IIB5
Source:	Mouse
Immunogen:	Human BrdU
Specificity:	BrdU
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM984-5R**
Ready-to-Use (Automated):	
***i*6000™**	**AM984-10R**
Xmatrx®	**AX984-YCD, AX984-50D**
NanoVip™®	**AX984-4M**
Concentrated:	**MU984-UC, MU984-5UC**
Recommended Positive Control:	**FG-984M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-984M (Xmatrx & NanoVip™)**

BrdU or bromodeoxyuridine (5-Bromo-2?-deoxyuridin) is a synthetic nucleoside that is analogous to thymidine. Due to its analogy to thymidine, BrdU can replace the thymidine and can be incorporated into newly synthesized DNA during the S-phase of the cell cycle. This makes BrdU a very important tool in detecting proliferating cells. BrdU is neither radioactive nor myelotoxic at labeling concentrations. This makes it a very useful tool in monitoring the proliferation of carcinoma cells in-vivo.

BrdU

P



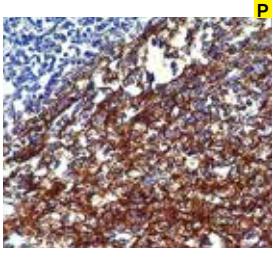
Intestine tissue stained with Anti-BrdU using DAB Chromogen

Clone:	BRD494
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human BrdU
Specificity:	BrdU
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD & HX046-08XN
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC48-5R**
Ready-to-Use (Automated):	
***i*6000™**	**AMC48-10R**
Xmatrx®	**AXC48-YCD, AXC48-50D**
NanoVip™®	**AXC48-4M**
Concentrated:	**MUC48-UC, MUC48-5UC**
Recommended Positive Control:	**FG-C48M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C48M (Xmatrx & NanoVip™)**

BrdU (Bromodeoxyuridine, 5β-Bromo-2-deoxyuridine) is a uridine derivative and synthetic nucleoside thymidine analogue that is incorporated into newly synthesized DNA strands of S-phase cells substituting for thymidine. The uptake of BrdU during the cell division is a reliable method for monitoring cell proliferation and progression through S phase of the cell cycle. BrdU displays nuclear staining and is used to observe the multiplication of tumor cells and other tissues in vivo.

C4D



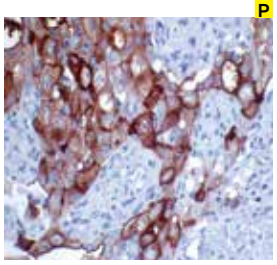
Tonsil tissue stained with Anti-C4D using DAB chromogen

Clone:	Polyclonal
Isotype:	IgG
Source:	Rabbit
Immunogen:	Recombinant human cyclin D3 corresponding to residues 241-260
Specificity:	Beta-catenin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ARA29-5R**
Ready-to-Use (Automated):	
***i*6000™**	**AMA29-10R**
Xmatrx®	**AXA29-YCD**
NanoVip™®	**AXA29-4M**
Concentrated:	**MUA29-UC, MUA29-5UC**
Recommended Positive Control:	**FG-A29M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A29M (Xmatrx & NanoVip™)**

C4D (complement 4d) antibody reacts with secreted and cell-bound C4d. It's a degradation product of the activated complement factor C4b. Binding of Abs to specific target molecules generally activates C4b. The existence of C4d in peritubular capillaries could be an important indicator for acute humoral rejection of heart, kidney, lung and pancreas allografts. C4D can be detected in peritubular capillaries in chronic renal allograft rejection.

CA 125 (Ovarian Tumor Marker)



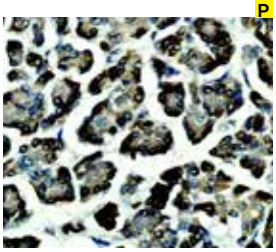
Ovarian carcinoma tissue stained with Anti-Ovarian Tumor Marker (CA125) using DAB chromogen

Clone:	Ov185:1
Isotype:	IgG1
Source:	Mouse
Immunogen:	A partially purified mucin fraction from a pool of carcinoma tissues from patients with epithelial ovarian carcinoma.
Specificity:	Repetitive protein determinant expressed in the protein core of CA125 human ovarian carcinoma antigen.
Localization:	Membrane/Cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM429-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM429-10M**
Xmatrx®	**AX429-YCD, AX429-50D**
NanoVip™®	**AX429-4M**
Concentrated:	**MU429-UC, MU429-5UC**
Recommended Positive Control:	**FG-429M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-429M (Xmatrx & NanoVip™)**

Monoclonal antibody Ov185:1 reacts with repetitive protein determinant expressed in the protein core of the CA125 human ovarian carcinoma antigen. This marker is usually associated with ovarian epithelial malignancies. Immunohistochemistry with CA125 antibody in conjunction with other markers was found to be useful in tracing the origin of adeno carcinoma of unknown origin. This antibody stains membrane in ovarian carcinoma cells.

C4D



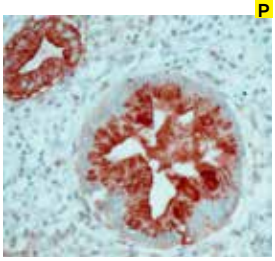
Tonsil tissue stained with Anti-C4d using DAB Chromogen

Clone:	SPM545
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human C4d
Specificity:	C4d
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD36-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD36-10M**
Xmatrx®	**AXD36-YCD, AXD36-50D**
NanoVip™®	**AXD36-4M**
Concentrated:	**MUD36-UC, MUD36-5UC**
Recommended Positive Control:	**FG-D36M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D36M (Xmatrx & NanoVip™)**

C4d (Complement 4d) is the final proteolytic remnant of the activated complement factor C4b. C4 is a component of the classical complement cascade, which is typically initiated by binding of antibodies to specific target molecules. The expression of C4d in peritubular capillaries is a crucial sign for acute humoral (i.e. antibody-mediated) rejection of kidney, pancreas, heart and lung allografts.

CA19-9



Colon tissue stained with Anti-CA19-9 using DAB chromogen

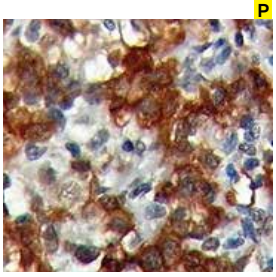
Clone:	C241:5:1:4
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human colorectal adeno carcinoma cell line COLO205
Specificity:	CA19-9 protein
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM424-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM424-10M**
Xmatrx®	**AX424-YCD, AX424-50D**
NanoVip™®	**AX424-4M**
Concentrated:	**MU424-UC, MU424-5UC**
Recommended Positive Control:	**FG-424M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-424M (Xmatrx & NanoVip™)**

Carcinoma Antigen 19-9 (CA19-9) is a carbohydrate antigen that reacts specifically with Sialyl Lewis-containing glycolipids and has been isolated and characterized as the oligosaccharide sialylazed lacto-N-fucopentose II antigen. This monoclonal antibody is directed against the CA19-9 antigen, which is expressed in pancreatic carcinomas, and hepatobillary carcinomas, the tumor cells of colorectal and gastric carcinomas.

CA-IX

P



GIST tissue stained with Anti-CA-IX using DAB Chromogen

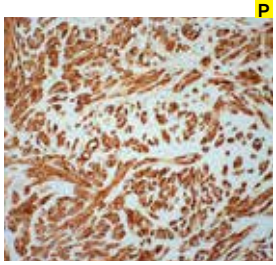
Clone:	H-11
Isotype:	IgG2a
Source:	Mouse
Immunogen:	Human CA-IX protein
Specificity:	Human CA-IX
Localization:	Membrane
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC19-5R**
Ready-to-Use (Automated):	
***i*6000™**	**AMC19-10R**
Xmatrx®	**AXC19-YCD, AXC19-50D**
NanoVip™®	**AXC19-4M**
Concentrated:	**MUC19-UC, MUC19-5UC**
Recommended Positive Control:	**FG-C19M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C19M (Xmatrx & NanoVip™)**

Carbonic anhydrase IX (CA-IX) is a cell surface transmembrane protein, belongs to the monomeric alpha class of zinc metalloenzymes called as Carbonic anhydrases. These enzymes catalyze the rapid hydration of carbon dioxide and water into carbonic acid, bicarbonate ions and protons. CAIX also participates in cellular pH regulation across the membrane by cooperating with sodium bicarbonate co-transporters (NBC), sodium/hydrogen exchanger (NHE) and lactate and proton exporting monocarboxylic acid transporters (MCT).

Caldesmon

P



UTERUS tissue with Anti-Caldesmon using DAB Chromogen

Clone:	EP19
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human Caldesmon
Specificity:	Caldesmon
Localization:	cytoplasm
Pre-treatment:	EZ-AR1 Elegance
Manual/i6000:	HK521-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN774-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN774-10M**
Xmatrx®	**AY774-YCD, AY774-50D**
NanoVip™®	**AY774-4M**
Concentrated:	**NU774-UC, NU774-5UC**
Recommended Positive Control:	**FG-774N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-774N (Xmatrx & NanoVip™)**

Anti-Caldesmon is a regulatory protein of smooth muscle and other tissues forming assoociations with actin, myosin, tropomyosin, and calmodulin. It is useful in differentiation of smooth muscle from myofibroblast tumors, uterus leiomyoma from endometrial stroma tumor. Caldesmon is a marker for identification of epitheloid mesothelioma

Calcitonin

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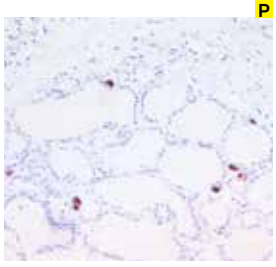

Thyroid tissue stained with Anti-Calcitonin using DAB Chromogen

Clone:	SP17
Isotype:	IgG
Source:	Rabbit
Immunogen:	-
Specificity:	Calcitonin
Localization:	Cell membrane
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN926-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN926-10M**
Xmatrx®	**AY926-50D, AY926-YCD**
NanoVip™®	**AY926-4M**
Concentrated:	**NU926-UC, NU926-5UC**
Recommended Positive Control:	**FG-926NE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-926NE (Xmatrx & NanoVip™)**

Calcitonin (CT) is a polypeptide hormone with 32 amino acids synthesized primarily by the thyroid. CT is able to decrease blood calcium levels by direct inhibition of mediated bone resorption and by enhancing calcium excretion by the kidney. Immunohistochemical staining with anti-calcitonin antibody has proven to be an effective way of demonstrating calcitonin-producing cells in the thyroid. C-cell hyperplasia and medullary thyroid carcinomas stain positive for calcitonin. Studies of calcitonin have resulted in the identification of a wide spectrum of C-cell proliferative abnormalities.

Caldesmon, High MW, Smooth Muscle

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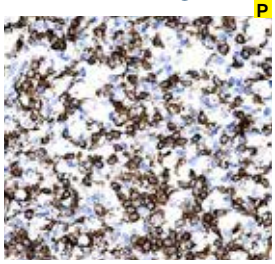


Smooth muscle tissue stained with Anti-Caldesmon using DAB Chromogen

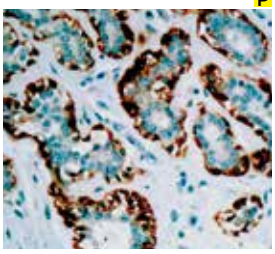
Clone:	h-CD
Isotype:	IgG1
Source:	Mouse
Immunogen:	Crude human uterus caldesmon
Specificity:	Caldesmon, high molecular weight
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM332-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM332-10M**
Xmatrx®	**AX332-YCD, AX332-50D**
NanoVip™®	**AX332-4M**
Concentrated:	**MU332-UC, MU332-5UC**
Recommended Positive Control:	**FG-332M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-332M (Xmatrx & NanoVip™)**

Caldesmon is considered to be the marker for smooth muscle cell phenotype. Monoclonal antibody to caldesmon, high molecular weight (120-150kD), in combination with monoclonal antibodies to calponin and smooth muscle myosin heavy chains could be used to distinguish benign and in-situ lesions from invasive carcinomas. Anti-caldesmon antibody may be used to characterize the differentiation process of mammary myoepithelial cells in the developing mammary gland, investigate the nature of myoepithelial cells and study the development of human smooth muscle cells.

Calponin

P



Myoepithelial cell tissue stained with Anti-Calponin using DAB chromogen

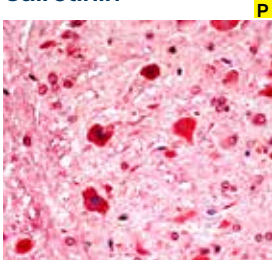
Clone:	CALP
Isotype:	IgG1
Source:	Mouse
Immunogen:	Crude human uterus extract
Specificity:	Phosphorylated tyrosine
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM333-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM333-10M**
Xmatrx®	**AX333-YCD, AX333-50D**
NanoVip™®	**AX333-4M**
Concentrated:	**MU333-UC, MU333-5UC**
Recommended Positive Control:	**FG-333M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-333M (Xmatrx & NanoVip™)**

Calponin is a 33 kD thin filament-associated protein that plays a role in regulation of smooth muscle contractility by anchoring myosin to actin. Monoclonal antibody to Calponin in combination with clones SMMS-1(anti-myosin heavy chain antibody) and h-CD (anti-Caldesmon antibody) could be used to distinguish benign and in-situ lesions from invasive carcinomas. This antibody stains Calponin in cytoplasm of vascular and visceral smooth muscle cells, myoepithelial cells in normal and benign human mammary gland, and certain stromal myofibroblasts.

Calretinin

P



CEREBRUM, CORTEX tissue stained with Anti-Calretinin using DAB chromogen

Clone:	Polyclonal
Isotype:	NA
Source:	Rabbit
Immunogen:	Human Calretinin
Specificity:	Calretinin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR413-5R**
Ready-to-Use (Automated):	
***i*6000™**	**AR413-10R**
Xmatrx®	**AW413-YCD, AW413-50D**
NanoVip™®	**AW413-4M**
Concentrated:	**PU413-UP, PU413-5UP**
Recommended Positive Control:	**FG-413P (Manual & i6000)**
Recommended Microchamber Slide:	**FB-413P (Xmatrx & NanoVip™)**

Calretinin, also known as Calbindin 2, is a calcium-binding protein belonging to the troponin C superfamily and calbindin subfamily. It consists of 271 amino acids and has a molecular weight of 31.5 kD. They can be found in different subsets of neurons in many brain regions and are considered valuable markers of neuronal subpopulations for anatomical and developmental studies. Calretinin is approved as a highly sensitive and specific marker for mesothelial cells and one of the best positive markers for differentiating epithelial malignant mesotheliomas.

Calponin-1

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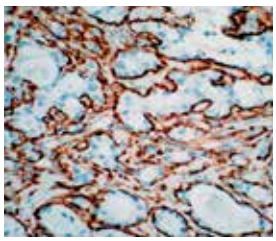


Pleomorphic adenoma tissue stained with Anti-Calponin-1using DAB chromogen

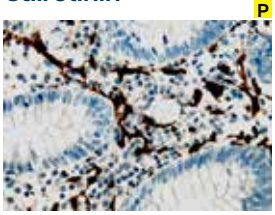
Clone:	EP63
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues near the C-terminus of human Calponin-1 protein.
Specificity:	Human Calponin-1
Localization:	-
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN821-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN821-10M**
Xmatrx®	**AY821-YCD, AY821-50D**
NanoVip™®	**AY821-4M**
Concentrated:	**NU821-UC, NU821-5UC**
Recommended Positive Control:	**FG-821N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-821N (Xmatrx & NanoVip™)**

Calponin is a smooth muscle specific, actin-, tropomyosin- and calmodulin-binding protein thought to be involved in regulation of actomyosin as well as the regulation or modulation of contraction. Calponin antibody has been found to be useful as a marker for myoepithelial and basal lamina in differentiating microinvasive from in situ ductal carcinomas of the breast. Calponin antibody may also have applications in malignant myoepithelium and pleomorphic adenoma of salivary gland as well as a useful marker for fine needle aspirates of papillary breast lesions.

Calretinin

P



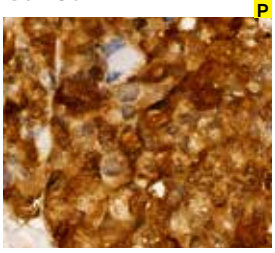
Cerebellum tissue stained with Anti-Calretinin using DAB chromogen

Clone:	2.00E+07
Isotype:	IgG
Source:	Mouse
Immunogen:	Human Calretinin
Specificity:	Calretinin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR1 Elegance
Manual/i6000:	HK521-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM583-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM583-10M**
Xmatrx®	**AX583-YCD, AX583-50D**
NanoVip™®	**AX583-4M**
Concentrated:	**MU583-UC, MU583-5UC**
Recommended Positive Control:	**FG-583M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-583M (Xmatrx & NanoVip™)**

Calretinin, also know as calbindin 2, is a vitamin D-dependent calcium binding protein that belongs to the calbindin family. It is mainly expressed central and peripheral nervous system and in many normal and pathological tissues. Calretinin can be found in different subsets of neurons and is considered as a valuable marker of neuronal subpopulations for anatomical and developmental studies. The absence of calretinin expression may serve as a diagnostic aid in identifying aganglionic segments in Hirschsprung?s Disease. It has been implicated as a calcium sensor, and regulator of apoptosis.

Calretinin



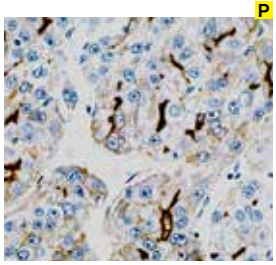
Mesotheloma tissue stained with Anti-Calretinin using DAB chromogen

Clone:	SP13
Isotype:	IgG
Source:	Rabbit
Immunogen:	Recombinant full length mouse calretinin protein
Specificity:	Human Calretinin
Localization:	Cytoplasm and Membrane
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN747-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN747-10M**
Xmatrx®	**AY747-50D, AY747-YCD**
NanoVip™®	**AY747-4M**
Concentrated:	**NU747-UC, NU747-5UC**
Recommended Positive Control:	**FG-747NE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-747NE (Xmatrx & NanoVip™)**

This antibody recognizes a protein of 31.5kDa, identified as Calretinin. Calretinin is an intracellular calcium-binding protein belonging to the troponin C superfamily characterized by a structural motif described as the EF-hand domain. It is abundantly expressed in central and peripheral neural tissues, particularly in the retina and in the neurons of the sensory pathways, and calretinin may play an important role in the survival of nerve cells during disturbances in calcium homeostasis.

Carcinoembryonic Antigen



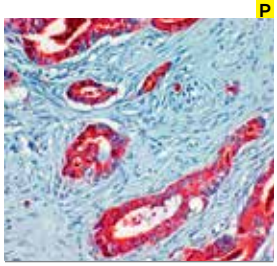
Colon Carcinoma tissue stained with Anti-Carcinoembryonic Antigen using DAB Chromogen

Clone:	Polyclonal
Isotype:	NA
Source:	Rabbit
Immunogen:	Human Carcinoembryonic Antigen
Specificity:	Carcinoembryonic Antigen
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR009-5R**
Ready-to-Use (Automated):	
***i*6000™**	**AM009-10R**
Xmatrx®	**AX009-YCD**
NanoVip™®	**AX009-4M**
Recommended Positive Control:	**FG-009M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-009M (Xmatrx & NanoVip™)**

CEA is a heterogeneous family of related oncofetal glycoproteins of molecular mass 200 kD that is secreted into the glycocalyx surface of gastrointestinal cells. Usually CEA is demonstrated as a linear labeling of the apical poles of cells lining the glandular lumen and, occasionally, as weak staining near the apex of colonic epithelial cells. CEA, however, should not be used as a marker of differentiation because many colon and lung tumors actually show increased staining with differentiation.

Carcinoembryonic Antigen (CEA)



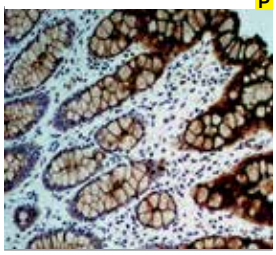
Colon carcinoma tissue stained with Anti-CEA using AEC chromogen

Clone:	B01-94-11M-P
Isotype:	IgG 2b
Source:	Mouse
Immunogen:	Human carcinoembryonic antigen
Specificity:	Carcinoembryonic antigen (CEA)
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM009-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM009-10M**
Xmatrx®	**AX009-YCD, AX009-50D**
NanoVip™®	**AX009-4M**
Concentrated:	**MU009-UC, MU009-5UC**
Recommended Positive Control:	**FG-009M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-009M (Xmatrx & NanoVip™)**

CEA consists of a heterogeneous family of related oncofetal 200 kD glycoproteins that is secreted into the glycocalyx surface of gastrointestinal cells. Usually CEA is demonstrated as a linear labeling of the apical poles of cells lining the glandular lumen and, occasionally, as weak staining near the apex of colonic epithelial cells. Pancreatic carcinomas, testicular tumor, gallbladder neoplasms and granular cell myoblastomas stain positive, whereas malignant tumors of brain, prostate, skin, lymphoreticular tissues, hepatocellular carcinomas, esophageal squamous cell carcinomas, and mesothelioma fail to stain for CEA.

Carcinoembryonic Antigen (CEA)



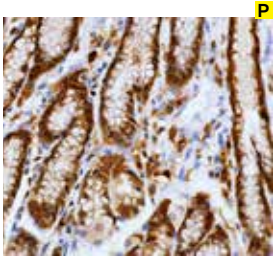
Colon tissue showing Anti-CEA positivity stained using DAB chromogen

Clone:	CEA88
Isotype:	IgG1
Source:	Mouse
Immunogen:	Partially purified human CEA
Specificity:	Carcinoembryonic antigen (CEA)
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM365-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM365-10M**
Xmatrx®	**AX365-YCD, AX365-50D**
NanoVip™®	**AX365-4M**
Concentrated:	**MU365-UC, MU365-5UC**
Recommended Positive Control:	**FG-365M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-365M (Xmatrx & NanoVip™)**

CEA is demonstrated as a linear labeling of the apical poles of cells lining the glandular lumen and, occasionally, as weak staining near the apex of colonic epithelial cells. CEA, however, should not be used as a marker of differentiation because many colon and lung tumors actually show increased staining with differentiation. Pancreatic carcinomas, testicular tumor, gallbladder neoplasms and granular cell myoblastomas stain positive, whereas malignant tumors of brain, prostate, skin, lymphoreticular tissues, hepatocellular carcinomas, oesophageal squamous cell carcinomas, and mesothelioma fail to stain for CEA.

Caspase-3



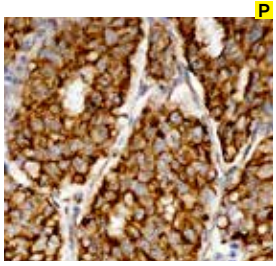
Liver tissue stained with Anti-Caspase-3 using DAB Chromogen

Clone:	BU20a
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human Caspase-3
Specificity:	Caspase-3
Localization:	Cytoplasmic
Pre-treatment:	EZ-AR2
Manual/i6000:	HK521-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB42-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB42-10M**
Xmatrx®	**AXB42-YCD, AXB42-50D**
NanoVip™®	**AXB42-4M**
Concentrated:	**MUB42-UC, MUB42-5UC**
Recommended Positive Control:	**FG-B42M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B42M (Xmatrx & NanoVip™)**

Caspase-3, also known as apopain, SCA-1, Yama and CPP32, is an aspartate-specific cysteine protease that belongs to the interleukin-1?-converting enzyme subfamily of caspases.Caspase-3 is synthesized as an inactive proenzyme (32 kDa) that is processed in cells undergoing apoptosis by self-proteolysis and/or further cleaved by another upstream protease generating two subunits of 17 kDa and 12 kDa. These sub units activates other caspases, as well as relevant targets in the cells such as PARP and DFF.

Beta-Catenin



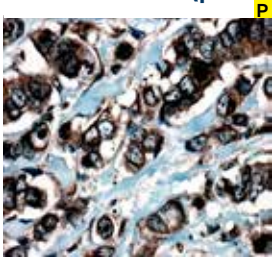
Breast Carcinoma tissue stained with Beta-Catenin using DAB Chromogen

Clone:	CTNNB1/1507
Isotype:	IgG1, Kappa
Source:	Mouse
Immunogen:	Human Beta-Catenin
Specificity:	Beta-Catenin
Localization:	Mem & Cyt
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB01-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB01-10M**
Xmatrx®	**AXB01-YCD, AXB01-50D**
NanoVip™®	**AXB01-4M**
Concentrated:	**MUB01-UC, MUB01-5UC**
Recommended Positive Control:	**FG-B01M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B01M (Xmatrx & NanoVip™)**

Beta-catenin, an adherens junction (AJ) protein, is a component of cell-cell adhesion structures which are necessary for the creation and maintenance of epithelial cell layers by regulating cell growth and adhesion between cells. β-catenin has an important role in cell adhesion, bridging between cadherins and actin cytoskeleton.

Catenin Delta 1 (p120)



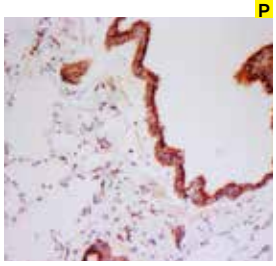
Breast Carcinoma tissue stained with Anti-Catenin delta 1 (p120) using DAB chromogen

Clone:	Polyclonal
Isotype:	IgG
Source:	Rabbit
Immunogen:	Catenine delta
Specificity:	Catenine delta
Localization:	Membrane and cytoplasm
Pre-treatment:	EZ-AR1/EZ-AR2 elegance
Manual/i6000:	HK546-XAK/HK547-XAK
Xmatrx:	HX031-YCD& HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR706-5R**
Ready-to-Use (Automated):	
***i*6000™**	**AM706-10R**
Xmatrx®	**AX706-YCD, AX706-50D**
NanoVip™®	**AW706-4M**
Concentrated:	**PU706-UP, PU706-5UP**
Recommended Positive Control:	**FG-706P (Manual & i6000)**
Recommended Microchamber Slide:	**FB-706P (Xmatrx & NanoVip™)**

Catenines are proteins that are linked to the cytoplasmic domain of transmembrane cadherins. P120 Catenin is a member of this Aemadillo gene family of junctional plaque proteins. Cytoplasmic accumulation of p120 catenine has been observed in lung carcinoma, pancreatic carcinoma, gastric carcinoma and colon carcinomas and is associated with poor prognosis in colon carcinoma patients. In breast lobular neoplasia, anti p120 Catenine shows a diffuse cytoplasmic immunostaining pattern, while breast ductal neoplasma retains the membrane immunostaining pattern.

Cathepsin D



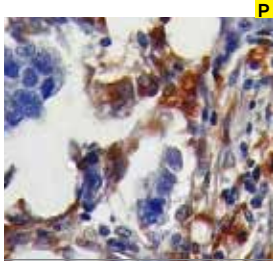
Lung tissue stained with Anti-Cathepsin D using DAB Chromogen

Clone:	CTSD/3082
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Human Cathepsin D
Specificity:	Cathepsin D
Localization:	Cytoplasm
Pre-treatment:	EZ-AR1 Elegance
Manual/i6000:	HK521-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM961-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM961-10M**
Xmatrx®	**AX961-YCD, AX961-50D**
NanoVip™®	**AX961-4M**
Concentrated:	**MU961-UC, MU961-5UC**
Recommended Positive Control:	**FG-961M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-961M (Xmatrx & NanoVip™)**

Cathepsin D is a soluble aspartic endopeptidase found in the lysosomes of most mammalian cells. Cathepsin D is activated by proteolytic cleavage of the synthesized inactive zymogen (preproCathepsin D), which is composed of an N-terminal signal peptide, a propeptide, and a catalytic domain. Cathepsin D plays a role in general protein degradation and turnover within the lysosomal compartment, as an important signaling and regulator molecule.

Cathepsin K



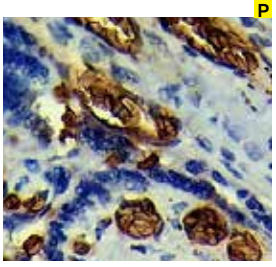
Breast Carcinoma tissue stained with Anti-Cathepsin K using DAB Chromogen

Clone:	CTSK/2791
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human Cathepsin K
Specificity:	Cathepsin K
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC13-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC13-10M**
Xmatrx®	**AXC13-YCD, AXC13-50D**
NanoVip™®	**AXC13-4M**
Concentrated:	**MUC13-UC, MUC13-5UC**
Recommended Positive Control:	**FG-C13M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C13M (Xmatrx & NanoVip™)**

Cathepsin K also designated as CTSK, CTSO, CTSO2, is a lysosomal cysteine protease belongs to the papain cysteine protease family. It is an important protease involved in bone remodeling and resorption by degrading type I collagen, osteopontin, and other bone matrix proteins. Cathepsin K expression is observed in bone, cartilage and skeletal muscle. Its expression is also seen in a significant fraction of human breast carcinomas, where it could contribute to tumor invasiveness.

CD235a



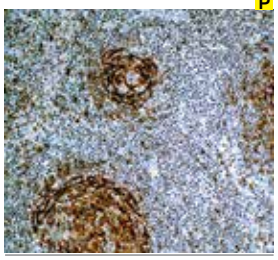
Placenta tissue stained with Anti-CD235a/Glycophorin A using DAB Chromogen

Clone:	GYPA/280
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human CD235a
Specificity:	CD235a
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA91-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA91-10M**
Xmatrx®	**AXA91-YCD, AXA91-50D**
NanoVip™®	**AXA91-4M**
Concentrated:	**MUA91-UC, MUA91-5UC**
Recommended Positive Control:	**FG-A91M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A91M (Xmatrx & NanoVip™)**

CD235a (Glycophorins A, GPA) is a single pass membrane sialoglycoprotein expressed in mature erythrocytes and erythroid precursor cells. CD235a is the carrier of blood group M and N specificities. CD235a provides cells with a large mucin-like that may serve as a barrier to cell fusion, minimizing aggregation between red blood cells in the circulation. CD235a has been shown to act as a receptor for Sandei virus, parvovirus, and Hsa, and Streptococcus adhesin. Glycophorin A (GPA) and B (GPB), which are single, trans-membrane sialoglycoproteins. GPA is the carrier of blood group M and N specificities, while GPB accounts for S and U specificities.

CD23



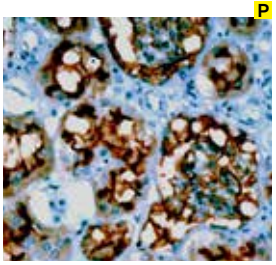
Lymph node tissue stained with Anti-CD23 using DAB chromogen

Clone:	Polyclonal
Isotype:	IgG
Source:	Rabbit
Immunogen:	CD23 antigen
Specificity:	CD23
Localization:	Membrane
Pre-treatment:	EZ-AR1/EZ-AR2 elegance
Manual/i6000:	HK546-XAK/HK547-XAK
Xmatrx:	HX031-YCD& & HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR460-5R**
Ready-to-Use (Automated):	
***i*6000™**	**AM460-10R**
Xmatrx®	**AX460-YCD, AX460-50D**
NanoVip™®	**AW460-4M**
Concentrated:	**PU460-UP, PU460-5UP**
Recommended Positive Control:	**FG-460P (Manual & i6000)**
Recommended Microchamber Slide:	**FB-460P (Xmatrx & NanoVip™)**

CD23 is a 45 kD type II integral membrane glycoprotein that belongs to the C-type lectin family of adhesion molecules.The CD23 molecule is identical to the low affinity IgE receptor found on B-cells. CD23 has been proposed to be an important regulator of IgE synthesis. Anti-CD23 antibody treatment of rats inhibited antigen-specific IgE immune response by 90%. CD23 is a common B cell/monocyte surface antigen. CD23 is expressed on IgM+/IgD+ B cells, as well as on a variety of other cells, including monocytes, eosinophils, dendritic cells, platelets, and macrophages. Expression of CD23 has been detected in neoplastic cells such as chronic lymphocytic leukemia, some cases of lymphoma and is strongly expressed on EBV transformed B lymphoblasts.

CD10



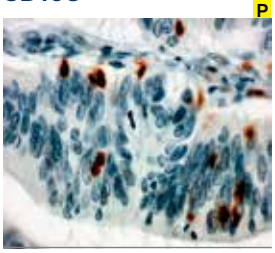
Kidney tissue stained with Anti-CD10 using DAB chromogen

Clone:	56C6
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human CD10
Specificity:	CD10
Localization:	Membrane
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM451-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM451-10M**
Xmatrx®	**AX451-YCD, AX451-50D**
NanoVip™®	**AX451-4M**
Concentrated:	**MU451-UC, MU451-5UC**
Recommended Positive Control:	**FG-451M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-451M (Xmatrx & NanoVip™)**

CD10, a 100KD glycoprotein, also known as Common Acute Lymphocytic Leukemia Antigen (CALLA), is a cell surface enzyme with neutral metalloendopeptidase activity which inactivates a variety of biologically active peptides. CD10 is expressed on the cells of lymphoblastic, Burkitt's and follicular germinal center lymphomas, and chronic myelogenous leukemia (CML). It is also expressed on the surface of normal early lymphoid progenitor cells, immature B cells within bone marrow and germinal center B cells within lymphoid tissue.CD10 is also present on breast myoepithelial cells, with especially high expression on the brush border of kidney and gut epithelial cells.

CD103



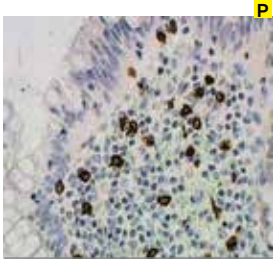
Colon carcinoma tissue stained with anti-CD103 using DAB chromogen

Clone:	EP206
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues of human CD103 protein
Specificity:	CD103
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK532-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN739-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AN739-10ME**
Xmatrx®	**AY739-YCDE, AY739-50DE**
NanoVip™®	**AY739-4ME**
Concentrated:	**NU739-UCE, NU739-5UCE**
Recommended Positive Control:	**FG-739NE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-739NE (Xmatrx & NanoVip™)**

CD103, also known as integrin alpha E (ITGAE), is an integrin protein that in humans is encoded by the ITGAE gene. CD103 is expressed on intraepithelial lymphocytes in mucosal areas, including lung and GI tract. In malignancies, CD103 is expressed on more than 95% of intraepithelial CD8+ cells and on 40% of mucosa-associated T cells, whereas less than 2% of resting blood lymphocytes are CD103-positive. In several malignant conditions, such as T-cell lymphomas and hairy cell leukemia, the cells express CD103.

CD117



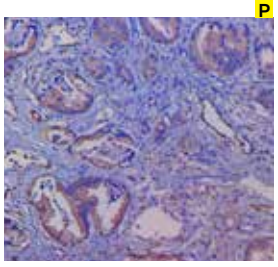
Appendix tissue stained with Anti-CD117 using DAB chromogen

Clone:	T595
Isotype:	IgG1 Kappa
Source:	Mouse
Immunogen:	Recombinant protein corresponding to the three N-terminal C2-like extracellular domains.
Specificity:	c-Kit protein (CD117)
Localization:	Membrane & Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM423-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM423-10M**
Xmatrx®	**AX423-YCD, AX423-50D**
NanoVip™®	**AX423-4M**
Concentrated:	**MU423-UC, MU423-5UC**
Recommended Positive Control:	**FG-423M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-423M (Xmatrx & NanoVip™)**

c-Kit (CD117) is a transmembrane, tyrosine kinase receptor and proto-oncogene product which is expressed on numerous diverse fetal and adult cells including hematopoietic cells, mast cells, melanocytes, germ cells, and the interstitial cells of Cajal. Its expression in tumors is also diverse.

CD105



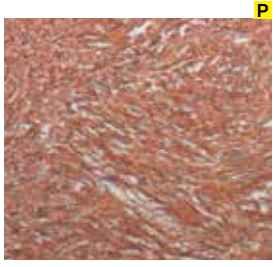
Prostate carcinoma stained with Anti-CD105 using DAB chromogen

Clone:	ENG/3269
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human CD105
Specificity:	CD105
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM990-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM990-10M**
Xmatrx®	**AX990-YCD, AX990-50D**
NanoVip™®	**AX990-4M**
Concentrated:	**MU990-UC, MU990-5UC**
Recommended Positive Control:	**FG-990M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-990M (Xmatrx & NanoVip™)**

CD235a (Glycophorins A, GPA) is a single pass membrane sialoglycoprotein expressed in mature erythrocytes and erythroid precursor cells. CD235a is the carrier of blood group M and N specificities. CD235a provides cells with a large mucin-like that may serve as a barrier to cell fusion, minimizing aggregation between red blood cells in the circulation. CD235a has been shown to act as a receptor for Sandei virus, parvovirus, and Hsa, and Streptococcus adhesin. Glycophorin A (GPA) and B (GPB), which are single, trans-membrane sialoglycoproteins. GPA is the carrier of blood group M and N specificities, while GPB accounts for S and U specificities. GPA and GPB provide the cells with a large mucin like surface and it has been suggested this provides a barrier to cell fusion, so minimizing aggregation between red blood cells in the circulation.

CD117/c-Kit/SCF



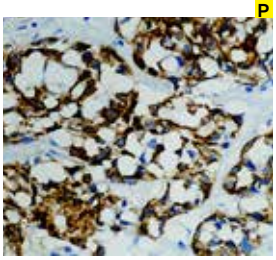
GIST tissue stained with Anti-CD117/c-Kit/SCF using DAB chromogen

Clone:	Polyclonal
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide from the cyto plasmicdomain of humanCD117 c-kitprotein
Specificity:	Human CD117/c-Kit/SCF
Localization:	Membrane/Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR759-5R**
Ready-to-Use (Automated):	
***i*6000™**	**AM759-10R**
Xmatrx®	**AX759-YCD, AX759-50D**
NanoVip™®	**AW759-4M**
Concentrated:	**PU759-UP, PU759-5UP**
Recommended Positive Control:	**FG-759P (Manual & i6000)**
Recommended Microchamber Slide:	**FB-759P (Xmatrx & NanoVip™)**

CD117 is a cytokine receptor expressed on the surface of hematopoietic stem cells as well as other cell types. CD117 recognizes a protein of 145kDa, which is identified as CD117/p145 kit. This rabbit polyclonal antibody does not interfere with the binding of SCF to c-kit. It precipitates both the unoccupied as well as the occupied form of c-kit. The binding of the stem cell factor (SCF) to the c-kit-encoded receptor tyrosine kinase(Type III) stimulates a variety of biochemical responses that culminate in cellular proliferation, migration, or survival. C-kit plays an important role in hematopoiesis, melanogenesis, and gametogenesis.

CD11b



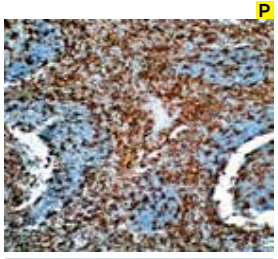
Tonsil tissue stained with Anti-CD11b using DAB chromogen

Clone:	ITGAM/3340
Isotype:	IgG2a, kappa
Source:	Mouse
Immunogen:	Human CD11b
Specificity:	CD11b
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC59-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC59-10M**
Xmatrx®	**AXC59-YCD, AXC59-50D**
NanoVip™®	**AXC59-4M**
Concentrated:	**MUC59-UC, MUC59-5UC**
Recommended Positive Control:	**FG-C59M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C59M (Xmatrx & NanoVip™)**

CD11b are cell adhesion molecules that acts as receptors for cell surface ligands such as intracellular adhesion molecules (ICAMs) or soluble ligands. The protein CD11b is involved in different cell adhesion-related interactions of monocytes, macrophages, natural killer (NK) cells, and granulocytes. The Integrins are hetero-dimeric proteins that are made up of an α chain and β chain, and are part of a heterodimer that consists of CD11b and CD18. CD11b is a common microglial marker in tissues derived from the nervous system. It may play a role in mast cell development.

CD11c



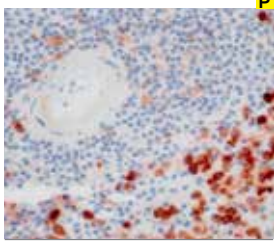
Tonsil tissue stained with Anti-CD11c/ITGAX using DAB chromogen

Clone:	EP157
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues of human CD11c/ITGA Xprotein
Specificity:	Human CD11c
Localization:	-
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN822-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN822-10M**
Xmatrx®	**AY822-YCD, AY822-50D**
NanoVip™®	**AY822-4M**
Concentrated:	**NU822-UC, NU822-5UC**
Recommended Positive Control:	**FG-822N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-822N (Xmatrx & NanoVip™)**

CD11c (ITGAX) is a member of the leukocyte integrin family of adhesion proteins. CD11c is expressed prominently on the plasma membranes of monocytes, tissue macrophages, NK cells, and most dendritic cells (DCs). A lower level of expression is also observed on neutrophils as a result of its high level of expression on most DCs. An antibody to CD11c may aid in identification of lesions with histiocytic origin. It may also been used as a marker for hairy cell leukemia in paraffin embedded tissues.

CD11b/ITAM



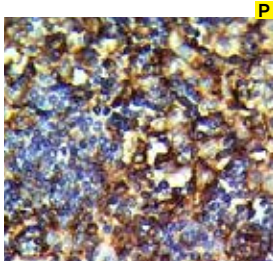
Spleen tissue stained with anti-Human CD11b/ITAM using DAB chromogen

Clone:	EP45
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human CD11b/IT protein
Specificity:	Human CD11b/IT
Localization:	-
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN851-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN851-10M**
Xmatrx®	**AY851-YCD, AY851-50D**
NanoVip™®	**AY851-4M**
Concentrated:	**NU851-UC, NU851-5UC**
Recommended Positive Control:	**FG-851N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-851N (Xmatrx & NanoVip™)**

CD11b, also known as ITAM, Integrin alpha-M or MAC-1 alpha subunit or CR3 alpha chain belongs to the integrin alpha chain family; it is predominately present in human myeloid cells, NK1 cells, monocytes, granulocytes and follicular dendritic cells. The alpha subunit of ITAM/beta-2 complex (CD11b/CD18, Mac-1), is a receptor for fibrinogen, factor X, and ICAM1. ITAM/beta-2 is implicated in adhesive interactions of monocytes, macrophages, and granulocytes. CD11b has been used as a common myeloid marker. CD11b is expressed in about 50% of acute myeloid leukemia (AML). In combination with CD117, CD11b is helpful in differentiating acute promyelocytic leukemia (CD11b negative) from recovering benign myeloid proliferation (CD11b positive, CD117 negative).

CD123



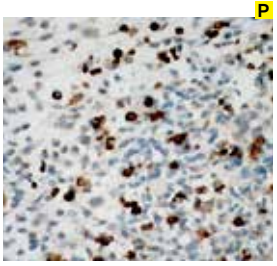
Lymph Node tissue stained with Anti-CD123 (IL3RA) using DAB Chromogen

Clone:	IL3RA/1531
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Human CD123
Specificity:	CD123
Localization:	Mem and Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA72-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA72-10M**
Xmatrx®	**AXA72-YCD, AXA72-50D**
NanoVip™®	**AXA72-4M**
Concentrated:	**MUA72-UC, MUA72-5UC**
Recommended Positive Control:	**FG-A72M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A72M (Xmatrx & NanoVip™)**

Interleukin 3 receptor alpha (IL3RA), also known as CD123 (Cluster of Differentiation 123) is a 70-kD glycoprotein member of the hematopoietin receptor superfamily. This protein associates with a beta subunit common to the receptors for IL-5 and granulocyte-macrophage colony-stimulating factor (GMCSF) to form a high-affinity receptor for IL-3. The interleukin-3 receptor ? chain (CD123) has been identified as a potential immunotherapeutic target because it is overexpressed in AML compared with normal hematopoietic stem cells.

CD13



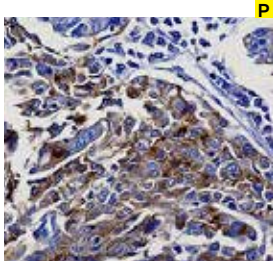
Lymphoma tissue stained with Anti-CD13 antibody using DAB chromogen

Clone:	EP117
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human CD13
Specificity:	CD13
Localization:	Mem/Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN832-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN832-10M**
Xmatrx®	**AY832-YCD, AY832-50D**
NanoVip™®	**AY832-4M**
Concentrated:	**NU832-UC, NU832-5UC**
Recommended Positive Control:	**FG-832N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-832N (Xmatrx & NanoVip™)**

CD13 belongs to the type II integral membrane metalloproteases which also includes the leukocyte antigens CD10, CD26, CD73 and BP-1. CD13 antigen posses aminopeptidase N activity, it is a receptor for the coronaviruses which cause respiratory disease in humans and several animal species. CD13 antigen is reported to be expressed on granulocytes, monocytes and their precursors, most acute myeloid leukemias and a smaller proportion of acute lymphoid leukemias. Non-hematopoietic cells which express CD13 antigen include epithelial cells, renal proximal tubules, intestinal brush border, endothelial cells, fibroblasts, brain cells, bone marrow, osteoclasts and cells lining the bile canaliculi

CD133



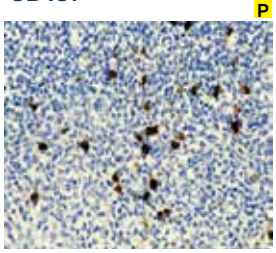
Tonsil tissue stained with Anti-CD133 using DAB Chromogen

Clone:	PROM/6316
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human CD133 protein
Specificity:	CD133
Localization:	Membrane/Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC99-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC99-10M**
Xmatrx®	**AXC99-YCD, AXC99-50D**
NanoVip™®	**AXC99-4M**
Concentrated:	**MUC99-UC, MUC99-5UC**
Recommended Positive Control:	**FG-C99M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C99M (Xmatrx & NanoVip™)**

CD133 also designated PROM1, Prominin-1 or AC133, is a 97 kDa stem cell antigen with 5 transmembrane domains. It is a pentaspan transmembrane glycoprotein expressed by immature hematopoietic stem cells but not mature blood cells. CD133 is expressed on primitive hematopoietic stem cells, progenitor stem cells, retinoblastoma, developing epithelium,

CD137



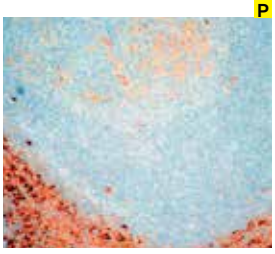
Tonsil tissue stained with Anti-CD137 using DAB Chromogen

Clone:	BBK-2
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human CD137
Specificity:	CD137
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB03-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB03-10M**
Xmatrx®	**AXB03-YCD, AXB03-50D**
NanoVip™®	**AXB03-4M**
Concentrated:	**MUB03-UC, MUB03-5UC**
Recommended Positive Control:	**FG-B03M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B03M (Xmatrx & NanoVip™)**

CD137, also known as TNFRSF9 or 4-1BB, is a member of the tumor necrosis factor receptor superfamily, represents a promising target for enhancing antitumor immune responses. It is an inducible costimulatory molecule expressed mainly on activated T cells. The functions of CD137 in T lymphocytes include regulating activation, proliferation and apoptosis. The ligand for CD137, known as 4-1BBL, is expressed on activated macrophages, mature B cells, hematopoietic stem cells, and myeloid progenitor cells. CD137 helps regulate the activation of many immune cells, including CD4 (+) T cells, CD8 (+) T cells, dendritic cells, and natural killer cells.

CD138



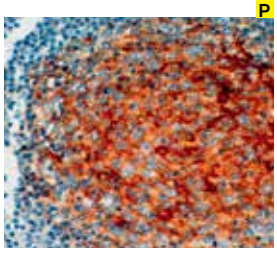
Tonsil stained with Anti-CD138 using DAB chromogen

Clone:	EP201
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human CD138 protein, a member of the trans membrane heparin sulfate proteoglycan family, acts as an extra cellular matrix receptor
Specificity:	Human CD138
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN837-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN837-10M**
Xmatrx®	**AY837-YCD, AY837-50D**
NanoVip™®	**AY837-4M**
Concentrated:	**NU837-UC, NU837-5UC**
Recommended Positive Control:	**FG-837N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-837N (Xmatrx & NanoVip™)**

CD138, also known as Syndecan-1, is a member of the transmembrane heparan sulfate proteoglycan family, acts as an extracellular matrix receptor and is involved in many cellular functions, including cell-cell adhesion and cell-matrix adhesion. CD 138 expression is found in both hematopoietic and non-hematopoietic cells. In the hematopoietic system, CD138 labels plasma cells. It is an excellent marker for plasmacytic differentiation within the spectrum of hematologic malignancy.

CD14



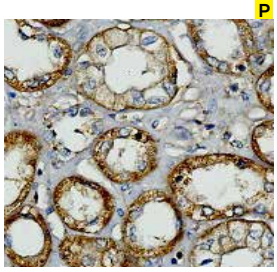
Tonsil tissue stained with Anti-CD14 using DAB chromoge

Clone:	EP128
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues of of human CD14 protein
Specificity:	Human CD14
Localization:	Membrane/Cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN814-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN814-10M**
Xmatrx®	**AY814-YCD, AY814-50D**
NanoVip™®	**AY814-4M**
Concentrated:	**NU814-UC, NU814-5UC**
Recommended Positive Control:	**FG-814N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-814N (Xmatrx & NanoVip™)**

CD14 is a surface protein preferentially expressed on monocytes/macrophages. It binds lipopolysaccharide binding protein and recently has been shown to bind apoptotic cells. CD14 is expressed by monocytes, dermal dendritic cells, and anti-CD14 is considered a monocyte marker. Anti-CD14 antibody labels Kupffer cells in liver sinusoids. In lymphoid tissues, dendritic cells are distinctly stained. Most other normal tissues are negative. This antibody labels monocyte macrophages and Langerhans cells in Langerhans cell histiocytosis. Tumor cells are positive in monocytic leukemia and true histiocytic lymphomas for CD14.

CD147



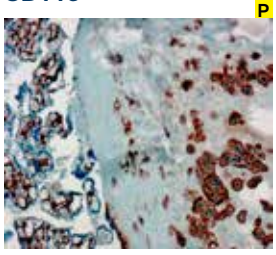
Kidney tissue stained with Anti-CD147 using DAB Chromogen

Clone:	BSG/963
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human CD147 protein
Specificity:	Human CD147
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA97-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA97-10M**
Xmatrx®	**AXA97-YCD, AXA97-50D**
NanoVip™®	**AXA97-4M**
Concentrated:	**MUA97-UC, MUA97-5UC**
Recommended Positive Control:	**FG-A97M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A97M (Xmatrx & NanoVip™)**

The human CD147 molecule is a transmembrane glycoprotein, also known as basigin, OK blood group, collagenase stimulatory factor, M6 antigen, neurothelin or extracellular matrix metalloproteinase inducer (EMMPRIN). It is thought to bind an unidentified ligand on fibroblasts which stimulates the production of collagenase and other extracellular matrix metalloproteinases enhancing tumor cell invasion and metastasis. The CD147 molecule is reported to have a broad expression pattern in both hematopoietic and nonhematopoietic tissues and is upregulated upon cell activation. These enzymes are important factors in carcinoma invasion and metastasis.

CD146



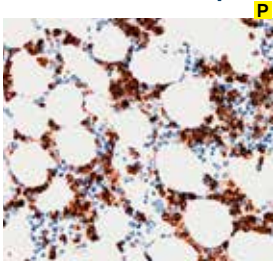
Placenta tissue stained with Anti-CD146 using DAB chromogen

Clone:	EP54
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues in human CD146 protein
Specificity:	CD146 protein
Localization:	Membrane/Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN716-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN716-10M**
Xmatrx®	**AY716-YCD, AY716-50D**
NanoVip™®	**AY716-4M**
Concentrated:	**NU716-UC, NU716-5UC**
Recommended Positive Control:	**FG-716N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-716N (Xmatrx & NanoVip™)**

CD146 (cluster of differentiation 146) labels endothelial cells, smooth muscle cells, intermediate trophoblast, subpopulation of T cells, and peripheral neuronal cells. In tumor, CD146 is expressed on tumor cells derived from peripheral nerves system, melanoma and clear cell sarcoma. CD146 has been used as a marker for intermediate trophoblast. It has been reported that CD146 is useful in differentiation of mesothelioma (CD146 positive) and reactive mesothelium (CD146 negative). CD146 is associated with tumor progression and the development of metastasis in human malignant melanoma.

CD15 (Blood Group Antigen Lewis X)



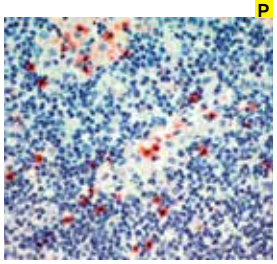
Bone marrow tissue stained with Anti-CD15 using DAB chromogen

Clone:	BRA4F1
Isotype:	IgM
Source:	Mouse
Immunogen:	Myelomonocytic leukemia cells
Specificity:	CD15
Localization:	Membrane/Cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM302-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM302-10M**
Xmatrx®	**AX302-YCD, AX302-50D**
NanoVip™®	**AX302-4M**
Concentrated:	**MU302-UC, MU302-5UC**
Recommended Positive Control:	**FG-302M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-302M (Xmatrx & NanoVip™)**

CD15 (BRA4F1) reacts with human CD15 antigen present on myeloid cells, mainly granulocytes but not on B cells, T cells, monocytes, erythrocytes or platelets. It also reacts with Hodgkin's and Reed-Sternberg cells in individuals with Hodgkin's disease. This antibody stains CD15 antigen in positive cells.

CD16



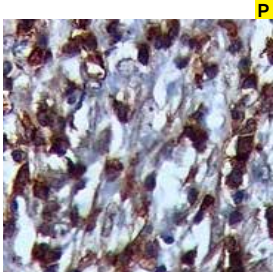
Lymph node tissue stained with Anti-CD16 using AEC chromogen

Clone:	2H7
Isotype:	IgG2a
Source:	Mouse
Immunogen:	Recombinant fusion protein corresponding to the external domain of the CD16 molecule common to both the trans-membrane form and the GPI-linked form
Specificity:	CD16 antigen
Localization:	Membrane & Cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM437-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM437-10M**
Xmatrx®	**AX437-YCD, AX437-50D**
NanoVip™®	**AX437-4M**
Concentrated:	**MU437-UC, MU437-5UC**
Recommended Positive Control:	**FG-437M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-437M (Xmatrx & NanoVip™)**

CD16 antigen is also known as Fc gamma receptor III and has a molecular weight of 50 to 70kD. It is a low affinity Fc receptor for complexed IgG-Fc gamma RIII, expressed on natural killer (NK) cells, granulocytes, activated macrophages and a subset of T cells expressing alpha-beta or gamma-delta T cell antigen receptors. Antibody-dependent cytotoxicity of NK cells is triggered by the engagement of CD16 with the Fc portion of IgG immunoglobulins bound to target cell-associated antigens.

CD162



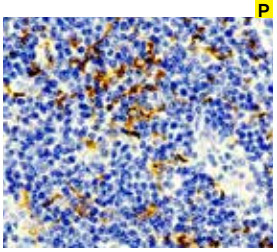
Squamous carcinoma tissue stained with Anti-CD162 using DAB Chromogen

Clone:	PSGL1/1601
Isotype:	IgG1, kappa
Source:	Mouse
Immunogen:	Human CD162 protein
Specificity:	Human CD162
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC67-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC67-10M**
Xmatrx®	**AXC67-YCD, AXC67-50D**
NanoVip™®	**AXC67-4M**
Concentrated:	**MUC67-UC, MUC67-5UC**
Recommended Positive Control:	**FG-C67M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C67M (Xmatrx & NanoVip™)**

CD162, also known as P-Selectin Glycoprotein Ligand-1(PSGL-1) or SELPLG, is a 120 kDa mucin-like type I transmembrane glycoprotein found as a homodimer with two disulfide-linked subunits. It is expressed on activated endothelial cells, neutrophils, monocytes, platelets, macrophages/DC's, most lymphocytes including NK and T cells but significantly low levels on B cells. CD162 is shown to be an important immune marker of T cell exhaustion in chronic viral infections and carcinoma.

CD163



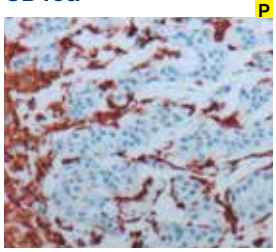
Tonsil tissue stained with Anti-CD163 antibody using DAB chromogen

Clone:	M130/2162
Isotype:	IgG2b, kappa
Source:	Mouse
Immunogen:	Human CD163
Specificity:	CD163
Localization:	Mem/Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA02-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA02-10M**
Xmatrx®	**AXA02-YCD, AXA02-50D**
NanoVip™®	**AXA02-4M**
Concentrated:	**MUA02-UC, MUA02-5UC**
Recommended Positive Control:	**FG-A02M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A02M (Xmatrx & NanoVip™)**

CD163 is a member of the SRCR family class B and is expressed in most subpopulations of mature tissue macrophages. The SRCR superfamily is a family of structurally related transmembrane glycoproteins. The characteristic building block of the extracellular domain of these molecules is the SRCR domain, which is an ancient and highly conserved domain of approximately 110 residues. The best characterized function of CD163 is related to the binding of the Hemoglobin: Haptoglobin complexes. There is evidence that CD163 also plays a role in host defense. It has been shown that CD163 can interact and bind with gram-positive and gram-negative bacteria, functioning like a macrophage receptor.

CD16a



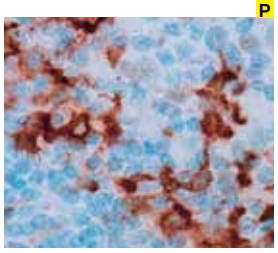
Lung Adeno carcinoma tissue stained with Anti-CD16a using DAB chromogen

Clone:	SP189
Isotype:	IgG
Source:	Rabbit
Immunogen:	A syntheticpeptide derivedfrom the C-terminusof humanCD16a protein
Specificity:	Human CD16a
Localization:	Membrane
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN749-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN749-10M**
Xmatrx®	**AY749-YCD, AY749-50D**
NanoVip™®	**AY749-4M**
Concentrated:	**NU749-UC, NU749-5UC**
Recommended Positive Control:	**FG-749N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-749N (Xmatrx & NanoVip™)**

CD16 is a cluster of differentiation found on the surface of natural killer cells, neutrophils or polymorphonuclear leukocytes (PMN), monocytesand macrophages CD16 is a 50-70 kDa glycoprotein which occurs in two isoforms, CD16a and CD16b. CD16a is a transmembrane molecule expressed on about 90% of NK cells and also found on macrophages and subsets of monocytes and T cells. CD16b is glycosylphosphatidylinositol-anchored and is expressed on virtually all neutrophils.

CD16a



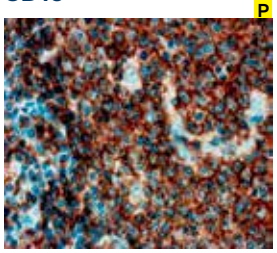
Tonsil tissue stained with Anti-CD16a using DAB chromogen

Clone:	SP175
Isotype:	IgG
Source:	Rabbit
Immunogen:	Tonsil stained with anti-Human CD16a using DAB chromogen
Specificity:	Human CD16a
Localization:	Cytoplasm and cell-cell junctions
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN762-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN762-10M**
Xmatrx®	**AY762-YCD, AY762-50D**
NanoVip™®	**AY762-4M**
Concentrated:	**NU762-UC, NU762-5UC**
Recommended Positive Control:	**FG-762N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-762N (Xmatrx & NanoVip™)**

CD16 is a cluster of differentiation found on the surface of natural killer cells, neutrophils or polymorphonuclear leukocytes (PMN), monocytes and macrophages. CD16 is a 50-70 kDa glycoprotein which occurs in two isoforms, CD16a and CD16b. CD16a is a transmembrane molecule expressed on about 90% of NK cells and also found on macrophages and subsets of monocytes and T cells. CD16b is glycosyl phosphatidyl inositol-anchored and is expressed on virtually all neutrophils.

CD19



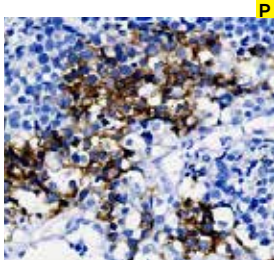
Tonsil tissue stained with Anti-CD19 using DAB chromogen

Clone:	EP169
Isotype:	IgG
Source:	Rabbit
Immunogen:	A recombinant fragment corresponding to residues in human CD19 protein
Specificity:	Human CD19 protein
Localization:	Membrane
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN772-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN772-10M**
Xmatrx®	**AY772-YCD, AY772-50D**
NanoVip™®	**AY772-4M**
Concentrated:	**NU772-UC, NU772-5UC**
Recommended Positive Control:	**FG-772N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-772N (Xmatrx & NanoVip™)**

CD19 is expressed on follicular dendritic cells and B cells. In fact, it is present on B cells from earliest recognizable B-lineage cells during development to B-cell blasts but is lost on maturation to plasma cells. It primarily acts as a B cell co-receptor in conjunction with CD21 and CD81. CD19 has been observed in lymphomas and leukemias but often weak/negative in follicular lymphoma or diffuse large B-cell lymphoma. CD19 may provide useful diagnostic information for the study of B-lymphoproliferative disorders.

CD171/NCAM-L1



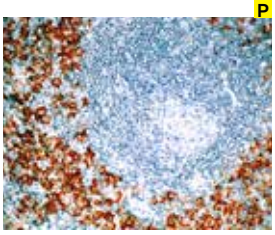
Neuroblastomas tissue stained with Anti-CD171/NCAM-L1 using DAB Chromogen

Clone:	SPM275
Isotype:	IgG1, kappa
Source:	Mouse
Immunogen:	Human CD171
Specificity:	CD171
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD01-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD01-10M**
Xmatrx®	**AXD01-YCD, AXD01-50D**
NanoVip™®	**AXD01-4M**
Concentrated:	**MUD01-UC, MUD01-5UC**
Recommended Positive Control:	**FG-D01M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D01M (Xmatrx & NanoVip™)**

CD171/ NCAM-L1 (neural cell adhesion molecule L1) is a 220-240kDa axonal type I membrane glycoprotein belonging to the cell adhesion molecules subgroup of immunoglobulin supergene family. It plays an important role in mediating nervous system development, including neuronal migration, differentiation, axon growth, and fasciculation. CD171 is also involved in cell adhesion and signal transduction by mediating homotypic and heterotypic cell-cell interactions. Expression of CD171 has been found on tissues arising from neuroectoderm, monocytes and mature monocytic-derived and follicular DCs, a minor subset of lymphocytes, endothelial cells, reticular fibroblasts, certain epithelial cells and several malignant tumors including colon and breast carcinomas, colon melanoma, tumor cells of neuronal and mesothelial origin.

CD1a



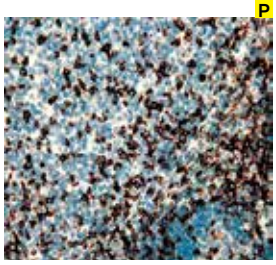
Lymph Node tissue stained with Anti-CD1a antibody using DAB chromogen

Clone:	O10
Isotype:	IgG
Source:	Mouse
Immunogen:	Human CD1a
Specificity:	CD1a
Localization:	Mem/Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM490-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM490-10M**
Xmatrx®	**AX490-YCD, AX490-50D**
NanoVip™®	**AX490-4M**
Concentrated:	**MU490-UC, MU490-5UC**
Recommended Positive Control:	**FG-490M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-490M (Xmatrx & NanoVip™)**

CD1 is expressed by one of the five CD1 genes (CD1a, b, c, d, and e) on cortical thymocytes, Langerhans cells, and dendritic cells. It is absent from the surface of mature peripheral blood T cells however intracytoplasmic expression is detected on activated T lymphocytes. CD1 proteins regulates T-cell response to non-peptide lipid and glycolipid antigens and play a role in non-classical antigen presentation. Ab-5 detects cortical thymocytes, Langerhans cells in epidermis, dendritic cells of dermis and Langherhans cells of mucosa of tonsil. It may also detect small focal groups of lymphocytes outside the germinal centers of tonsil indicating a crossreaction with CD1b. This antibody is useful in the characterization of leukaemias and lymphomas are identified

CD2



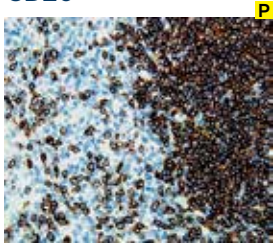
Tonsil tissue stained with Anti-CD2 using DAB chromogen

Clone:	AB75
Isotype:	IgG1 kappa
Source:	Mouse
Immunogen:	Recombinant fusion protein corresponding to the external domain of the CD2 molecule.
Specificity:	CD2 antigen (LFA-2)
Localization:	Membrane
Pre-treatment:	EZ-AR2 elegance
Manual/i6000	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM438-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM438-10M**
Xmatrx®	**AX438-YCD, AX438-50D**
NanoVip™®	**AX438-4M**
Concentrated:	**MU438-UC, MU438-5UC**
Recommended Positive Control:	**FG-438M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-438M (Xmatrx & NanoVip™)**

The CD2 antigen, also known as lymphocyte function antigen2 (LFA2), is a single chain type I transmembrane molecule of about 50 kD and consists of 351 amino acids. It plays a critical role in activation of T cells. It binds to CD58 on antigen presenting cells and induces tyrosine phosphorylation of other molecules involved in T cell activation. It also plays a regulatory role in T-cell or NK-cell mediated cytolysis. CD2 antigen is expressed on a majority of T cells in peripheral lymphoid tissue, NK cells, cortical thymocytes and most malignant cells of T cell origin. This antibody stains the membrane of positive T cells.

CD20



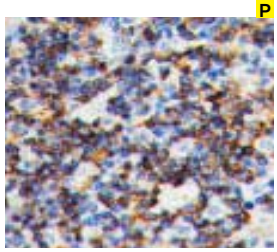
Tonsil tissue stained with Anti-CD20 using DAB chromogen

Clone:	CD20/C23
Isotype:	IgG1 kappa
Source:	Mouse
Immunogen:	Human CD20
Specificity:	CD20
Localization:	Membrane
Pre-treatment:	EZ-AR2 elegance
Manual/i6000	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM537-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM537-10M**
Xmatrx®	**AX537-YCD, AX537-50D**
NanoVip™®	**AX537-4M**
Concentrated:	**MU537-UC, MU537-5UC**
Recommended Positive Control:	**FG-537M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-537M (Xmatrx & NanoVip™)**

CD20 is a transmembrane, non-glycosylated protein expressed on B-cell precursors and mature B cells, but is lost following differentiation into plasma cells. This antibody does not cross-react with non-hematopoietic neoplasms. CD20 (B-cell Pan) reacts with a membrane antigen present in B-cells. This antibody strongly recognizes Reed-Sternberg cells predominant in Hodgkin`s disease. Since no staining of histiocytes or plasma cells has been observed and CD20 has not been detected in T-cell malignancies, it is a very strong marker of B-cell lymphomas. B-cell panmarker recognizes a formalin resistant intracytoplasmic antigen.

CD20



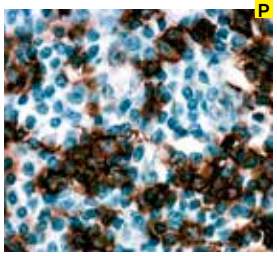
Tonsil tissue stained with Anti-CD20 using DAB Chromogen

Clone:	MS4A1/3409
Isotype:	IgG2b
Source:	Mouse
Immunogen:	A recombinant fragment (around aa 213-297) of human MS4A1 protein (exact sequence is proprietary)
Specificity:	CD20
Localization:	Membrane
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA53-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA53-10M**
Xmatrx®	**AXA53-YCD, AXA53-50D**
NanoVip™®	**AXA53-4M**
Concentrated:	**MUA53-UC, MUA53-5UC**
Recommended Positive Control:	**FG-A53M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A53M (Xmatrx & NanoVip™)**

The CD20 antigen is a non-glycosylated phosphoprotein of approximately 30-33kD and it is a cell surface antigen expressed specifically on most human B cells. CD20 is thought to act as a receptor during B cell activation and differentiation. CD20 antigen has been reported to be expressed on normal B cells from peripheral blood, lymph node, spleen, tonsil, bone marrow, acute leukemias and chronic lymphocytic leukemias. It reacts with the majority of B-cells present in peripheral blood and lymphoid tissues and their derived lymphomas.

CD20 (B Cell)



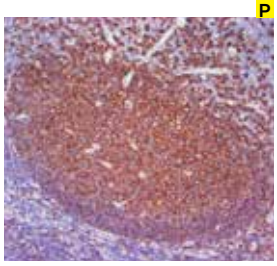
Tonsil tissue stained with Anti-CD-20 using DAB chromogen

Clone:	L-26
Isotype:	IgG2a Kappa
Source:	Mouse
Immunogen:	Human tonsil B cells
Specificity:	CD20
Localization:	Membrane
Pre-treatment:	EZ-AR2 elegance
Manual/i6000	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM238-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM238-10M**
Xmatrx®	**AX238-YCD, AX238-50D**
NanoVip™®	**AX238-4M**
Concentrated:	**MU238-UC, MU238-5UC**
Recommended Positive Control:	**FG-238M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-238M (Xmatrx & NanoVip™)**

This antibody reacts with a formalin-resistant intracytoplasmic epitope found in the majority of B cells which is now considered to be the CD20 antigen, a pan-B cell marker. The antibody primarily recognizes a 33 kD polypeptide B cell component and also a minor 30 kD cellular antigen.The staining pattern is consistent with pan-B reactivity, producing staining for B cells in lymphoid and peripheral blood tissue. This antibody intensely stains germinal centers and B immunoblasts in lymphoid tissue. L26 may prove to be a useful marker for L&H variants of Reed-Sternberg cells of Hodgkin's lymphomas where reactive pattern is distinct from other Reed-Sternberg variants. This antibody stains positive for membrane and some cytoplasm for B cells.

CD20/MS4A1



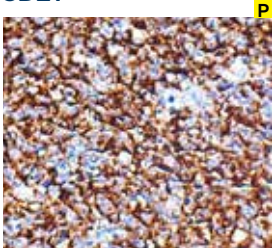
Tonsil tissue stained with Anti-CD20 using DAB Chromogen

Clone:	GEL/773
Isotype:	IgG2a
Source:	Mouse
Immunogen:	Recombinant human MS4A1 protein
Specificity:	CD20/MS4A1
Localization:	Cell membrane
Pre-treatment:	EZ-AR1 Elegance
Manual/i6000:	HK546-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM947-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM947-10M**
Xmatrx®	**AX947-YCD, AX947-50D**
NanoVip™®	**AX947-4M**
Concentrated:	**MU947-UC, MU947-5UC**
Recommended Positive Control:	**FG-947M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-947M (Xmatrx & NanoVip™)**

The CD20, which is a 33 kDa protein that traverses the cell membrane, initially expresses on pre B-cells and retains on mature B-cells. It is a non-Ig differentiation antigen of B-cells and its expression is restricted to normal and neoplastic B-cells, being absent from all other leukocytes and tissues. CD20 is lost upon terminal differentiation into plasma cells. Anti-CD20 can be used for immunophenotyping of leukemia and malignant cells, B lymphocyte detection in peripheral blood, and B cell localization in tissues. It reacts with the majority of B-cells present in peripheral blood and lymphoid tissues and their derived lymphomas.

CD21



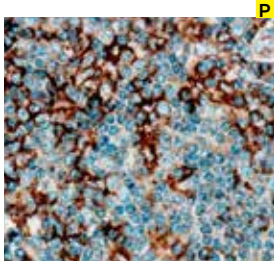
Tonsil tissue stained with anti-CD21 using DAB chromogen

Clone:	SP186
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide derived from the C-terminus of human CD21 protein
Specificity:	CD21
Localization:	Membrane
Pre-treatment:	EZ-AR2 elegance
Manual/i6000	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN745-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AN745-10ME**
Xmatrx®	**AY745-YCDE, AY745-50DE**
NanoVip™®	**AY745-4ME**
Concentrated:	**NU745-UCE, NU745-5UCE**
Recommended Positive Control:	**FG-745NE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-745NE (Xmatrx & NanoVip™)**

CD21 is a single-pass type 2 transmembrane protein that serves as the complement receptor for C3d and the Epstein-Barr virus. CD21 is useful in the identification of follicular dendritic cell matrix found in normal lymph node and tonsillar tissue. This antibody also labels follicular dendritic cell sarcomas. Anti-CD21 is valuable in differentiating follicular lymphoma with marginal zone differentiation from marginal zone lymphoma with follicular involvement. It also plays a role in separating among nodular lymphocyte predominant Hodgkin lymphoma, lymphocyte-rich classic Hodgkin lymphoma, and T-cell/histiocyte-rich B-cell lymphoma in combination with other B-cell and T-cell markers.

CD205



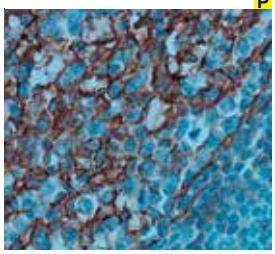
Tonsil tissue stained with Anti-CD205 using DAB chromogen

Clone:	EP176
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human CD205
Specificity:	CD205
Localization:	Mem/Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN737-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AN737-10ME**
Xmatrx®	**AY737-YCDE, AY737-50DE**
NanoVip™®	**AY737-4ME**
Concentrated:	**NU737-UCE, NU737-5UCE**
Recommended Positive Control:	**FG-737NE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-737NE (Xmatrx & NanoVip™)**

CD205 is a 205kDa integral membrane glycoprotein homologous to the macrophage mannose receptor and related receptors. CD205 is predominantly expressed by the thymic cortical epithelium and by dendritic cells (DC), but can also be detected at low levels in T and B lymphocytes and several other epithelial cell types. CD205 is a novel thymic epithelial marker that is important for the positive selection process of thymocytes. It is a sensitive and specific marker for thymoma, while the sensitivity to thymic carcinoma is lower than CD5 and CD117.

CD21



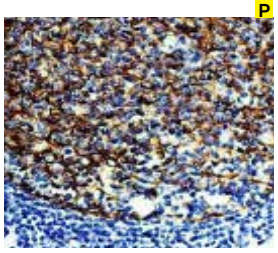
Tonsil tissue stained with anti-CD21 using DAB chromogen

Clone:	EP64
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding toresidues on the Cterminusofhuman CD21 protein
Specificity:	Human CD21
Localization:	Membrane
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN825-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN825-10M**
Xmatrx®	**AY825-YCD, AY825-50D**
NanoVip™®	**AY825-4M**
Concentrated:	**NU825-UC, NU825-5UC**
Recommended Positive Control:	**FG-825N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-825N (Xmatrx & NanoVip™)**

CD21 is a single-pass type 2 transmembrane protein that serves as thecomplement receptor for C3d and the Epstein-Barr virus. Anti-CD21 isvaluable in differentiating follicular lymphoma with marginal zone differentiation from marginal zone lymphoma with follicularinvolvement. It also plays a role in separating among nodular lymphocytepredominant Hodgkin lymphoma, lymphocyte-rich classic Hodgkinlymphoma, and T-cell/histiocyte-rich B-cell lymphoma in combinationwith other B-cell and T-cell markers. The antigen is absent on Tlymphocytes, monocytes, and granulocytes.

CD21



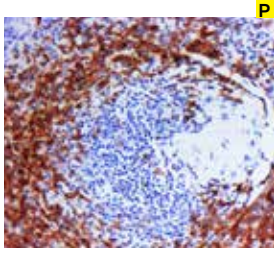
Tonsil tissue stained with Anti-CD21 using DAB Chromogen

Clone:	RM372
Isotype:	IgG
Source:	Rabbit
Immunogen:	A peptide corresponding to the C-terminus of human CD21 (Complement receptor type 2)
Specificity:	CD21
Localization:	Membrane
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ANA18-5M**
Ready-to-Use (Automated):	
***i*6000™**	**ANA18-10M**
Xmatrx®	**AYA18-YCD, AYA18-50D**
NanoVip™®	**AYA18-4M**
Concentrated:	**NUA18-UC, NUA18-5UC**
Recommended Positive Control:	**FG-A18N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A18N (Xmatrx & NanoVip™)**

CD21 is a single-pass type 2 transmembrane protein that serves as the complement receptor for C3d and the Epstein-Barr virus. Anti-CD21 is valuable in differentiating follicular lymphoma with marginal zone differentiation from marginal zone lymphoma with follicular involvement. It also plays a role in separating among nodular lymphocyte predominant Hodgkin lymphoma, lymphocyte-rich classic Hodgkin lymphoma, and T-cell/histiocyte-rich B-cell lymphoma in combination with other B-cell and T-cell markers. The antigen is absent on T-Lymphocytes, monocytes, and granulocytes.

CD22



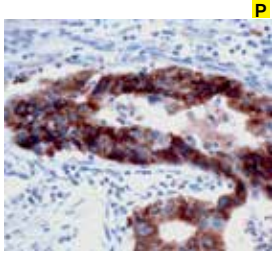
Tonsil tissue stained with Anti-CD22 using DAB chromogen

Clone:	BLCAM/1785
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human CD22
Specificity:	CD22
Localization:	Membrane
Pre-treatment:	EZ-AR1
Manual/i6000:	HK521-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AM962-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM962-10M**
Xmatrx®	**AX962-YCD, AX962-50D**
NanoVip™®	**AX962-4M**
Concentrated:	**MU962-UC, MU962-5UC**
Recommended Positive Control:	**FG-962M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-962M (Xmatrx & NanoVip™)**

CD-22, a B-cell transmembrane glycoprotein, is part of the immunoglobulin superfamily. The Ig domain of the CD-22 molecule binds to the Sialic acid particularly. It has been shown that CD-22 is a negative regulator of the BCR signal and therefore has a role in suppression of the immune response. CD-22 has also been linked to having a role in TLR signaling and B- cell survival. Defects in CD-22 has been linked to poor regulation of BCR and thus causing hyper responsive B-cells that lead to autoimmune diseases like Systemic Lupus erythematoses.

CD227 (Mucin 1)



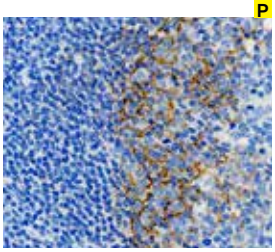
Mucinous adenocarcinoma tissue stained with Anti-CD227 using DAB chromogen

Clone:	VU-4H5
Isotype:	IgG1
Source:	Mouse
Immunogen:	60mer tandem repeat of VTSAPDTRPAPGSTA -PPAHG,conjugated to BSA
Specificity:	CD227 (MUCIN 1)
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM534-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM534-10M**
Xmatrx®	**AX534-YCD, AX534-50D**
NanoVip™®	**AX534-4M**
Concentrated:	**MU534-UC, MU534-5UC**
Recommended Positive Control:	**FG-534M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-534M (Xmatrx & NanoVip™)**

Mucins are a family of high molecular weight, heavily glycosylated proteins (glycoconjugates) produced by many epithelial tissues in vertebrates. CD227, also known as mucin 1, is a breast carcinoma associated mucin encoded by the Muc-1 gene. CD227 is expressed on most secretory epithelium, including mammary gland and some hematopoietic cells. This protein is over expressed abundantly in 90% breast carcinomas and metastases.

CD23



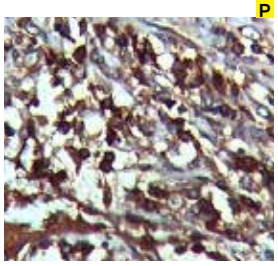
Tonsil tissue stained with Anti-CD23 using DAB chromogen

Clone:	SP23
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human CD23
Specificity:	CD23
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN988-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AN988-10ME**
Xmatrx®	**AY988-YCDE, AY988-50DE**
NanoVip™®	**AY988-4ME**
Concentrated:	**NU988-UCE, NU988-5UCE**
Recommended Positive Control:	**FG-988NE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-988NE (Xmatrx & NanoVip™)**

CD23 is a type II membrane glycoprotein which functions as a receptor for IgE and for lymphocyte growth factor. CD23 plays important role in B cell activation and growth. CD23 can be positive on B lymphocyte, monocytes, macrophages, follicular dendritic cells, T cell subsets. CD23 staining is applied in the differentiation of small lymphocytic lymphomas (SLL) and mantle cell lymphoma. CD23 expression can be detected in SLL, mediastinal large B cell lymphoma, and lymphoplasmacytic lymphoma.

CD269



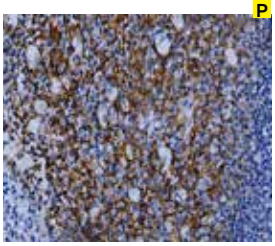
Colon tissue stained with Anti-CD269 using DAB Chromogen

Clone:	BCMA/2366
Isotype:	IgG2c, kappa
Source:	Mouse
Immunogen:	Human CD269
Specificity:	CD269
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC63-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC63-10M**
Xmatrx®	**AXC63-YCD, AXC63-50D**
NanoVip™®	**AXC63-4M**
Concentrated:	**MUC63-UC, MUC63-5UC**
Recommended Positive Control:	**FG-C63M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C63M (Xmatrx & NanoVip™)**

CD269, also known as BCMA (B cell maturation antigen) or TNFRSF17 (Tumor necrosis factor receptor superfamily member 17) is a 27 kD type I integral transmembrane glycoprotein that belongs to the tumor necrosis factor receptor (TNF-R) superfamily. Upon binding to its ligands, CD269 activates NF-kB and c-Jun N-terminal kinase and thus leads to B cell development and survival. It is expressed in mature B-lymphocytes, plasmablasts and plasma cells.

C4d



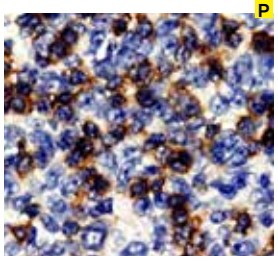
Tonsil tissue stained with Anti-CD3 using DAB chromogen

Clone:	C4D204
Isotype:	IgG1, Kappa
Source:	Mouse
Immunogen:	Human C4d
Specificity:	C4d
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD60-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD60-10M**
Xmatrx®	**AXD60-YCD, AXD60-50D**
NanoVip™®	**AXD60-4M**
Concentrated:	**MUD60-UC, MUD60-5UC**
Recommended Positive Control:	**FG-D60M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D60M (Xmatrx & NanoVip™)**

Human CD3 complex is associated with the T cell receptor (TcR) at the cell surface. Expression of CD3 antigen is generally restricted to the T-cell lineage, but weak expression might also occur in Purkinje cells in the brain, in macrophages, and in Reed-Sternberg cells in Hodgkin's lymphoma. The CD3 antigen is expressed early in the maturation of T cells. Monoclonal antibody PS1 reacts with the non-glycosylated epsilon chain of CD3. The antibody stains CD3 antigen in the membrane of the positive cells.

CD27



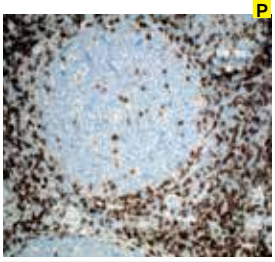
Tonsil tissue stained with Anti-CD27 using DAB chromogen

Clone:	Polyclonal
Isotype:	IgG
Source:	Rabbit
Immunogen:	CD27 molecule
Specificity:	Human CD27
Localization:	Cell Membrane
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR912-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AR912-10RE**
Xmatrx®	**AW912-YCDE, AW912-50DE**
NanoVip™®	**AW912-4ME**
Concentrated:	**PU912-UPE, PU912-5UPE, PU912-1UPE**
Recommended Positive Control:	**FG-912PE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-912PE (Xmatrx & NanoVip™)**

CD27 or TNFRSF7, is a type I transmembrane protein and TNF receptor that is expressed on subsets of T, B, NK, and hematopoietic progenitor cells. CD27 controls the activity of these cells by engaging with CD70, which is transiently expressed by cells of the immune system upon activation. Studies have demonstrated that the interaction between CD27 and its ligand, CD70, plays a role in providing costimulation for prolonged lymphocyte survival, enhanced T-cell proliferation, and memory-cell formation. Preclinical studies with fully-human agonistic antibodies to CD27 indicate that responses to CD27 stimulation are recapitulated by human lymphocytes in vitro and in vivo and can promote adaptive immunity in a variety of tumors models.

CD3 (T Cell)



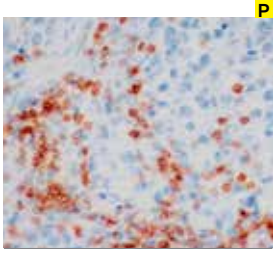
Tonsil tissue stained with Anti-CD3 using DAB chromogen

Clone:	PS1
Isotype:	IgG 2a
Source:	Mouse
Immunogen:	Fusion protein to the epsilon chain of CD3
Specificity:	CD3 antigen
Localization:	Membrane
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM322-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM322-10M**
Xmatrx®	**AX322-YCD, AX322-50D**
NanoVip™®	**AX322-4M**
Concentrated:	**MU322-UC, MU322-5UC**
Recommended Positive Control:	**FG-322M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-322M (Xmatrx & NanoVip™)**

Human CD3 complex is associated with the T cell receptor (TcR) at the cell surface. Expression of CD3 antigen is generally restricted to the T-cell lineage, but weak expression might also occur in Purkinje cells in the brain, in macrophages, and in Reed-Sternberg cells in Hodgkin's lymphoma. The CD3 antigen is expressed early in the maturation of T cells. Monoclonal antibody PS1 reacts with the non-glycosylated epsilon chain of CD3. The antibody stains CD3 antigen in the membrane of the positive cells.

CD3



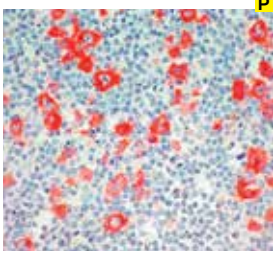
Lymphoma tissue stained with Anti-CD3 using DAB chromogen

Clone:	EP41
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human CD3, a complex of proteins that associates directly with the T-Cell antigen receptor (TCR)
Specificity:	Human CD3
Localization:	Membrane
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN846-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN846-10M**
Xmatrx®	**AY846-YCD, AY846-50D**
NanoVip™®	**AY846-4M**
Concentrated:	**NU846-UC, NU846-5UC**
Recommended Positive Control:	**FG-846N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-846N (Xmatrx & NanoVip™)**

CD3 (Cluster of Differentiation 3) is a complex of proteins that associates directly with the T cell antigen receptor (TCR). CD3 is composed of five invariant polypeptide chains that associate to form three dimers. The five invariant chains of CD3 are labeled gamma, delta, epsilon, zeta, and eta. The CD3 is involved in T cell development and survival. It is expressed on T cells in Thymus, peripheral lymphoid tissue, blood and bone marrow. CD3 is a commonly used marker for identification of T cell and T cell derived malignancies.

CD30 (Ki-1 Antigen)



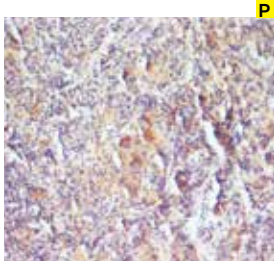
Hodgkins tissue stained with Anti-CD30 using AEC chromogen

Clone:	Ber-H2
Isotype:	IgG1 Kappa
Source:	Mouse
Immunogen:	Hodgkin's lymphoma cell line L428
Specificity:	CD30 (Ki-1) antigen
Localization:	Membrane & Cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM327-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM327-10M**
Xmatrx®	**AX327-YCD, AX327-50D**
NanoVip™®	**AX327-4M**
Concentrated:	**MU327-UC, MU327-5UC**
Recommended Positive Control:	**FG-327M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-327M (Xmatrx & NanoVip™)**

CD30 (Ki-1 antigen), a 120 kD single chain glycoprotein, is expressed in only a small population of normal lymphoid tissue. By contrast, it is expressed in approximately 50% of all malignant lymphomas including all cases of Hodgkin's disease and a vast majority of Ki-1 positive anaplastic large cell lymphomas. Ki-1 antigen can be detected in sera from lymphoma patients, but not in sera from normal individuals with systemic infection. This antibody stains CD30 (Ki-1) antigen in the membrane of positive cells.

CD30



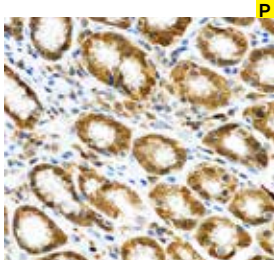
Hodgkin cell tissue stained with Anti-CD30 using DAB chromogen

Clone:	EPR4102
Isotype:	IgG
Source:	Rabbit
Immunogen:	Synthetic peptide corresponding to residues at the C-terminus of Human CD30
Specificity:	CD30
Localization:	Cell membrane
Pre-treatment:	EZ-AR1 Elegance
Manual/i6000:	HK546-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AN955-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN955-10M**
Xmatrx®	**AY955-YCD, AY955-50D**
NanoVip™®	**AY955-4M**
Concentrated:	**NU955-UC, NU955-5UC**
Recommended Positive Control:	**FG-955N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-955N (Xmatrx & NanoVip™)**

CD30 functions as a receptor for TNFSF8/CD30L and may play a role in the regulation of cellular growth and transformation of activated lymphoblasts. In Hodgkin's disease, the CD30/Ki-1 antigen is expressed by mononuclear-Hodgkin and multinucleated Reed-Sternberg cells. It is also expressed by the tumor cells of a majority of anaplastic large cell lymphomas as well as by a varying proportion of activated T and B cells. Anti-CD30 distinguishes large cell lymphomas derived from activated lymphoid cells from histocytic malignancies and lymphomas derived from resting and precursor lymphoid cells or from anaplastic carcinomas.

Caspase-3 p17



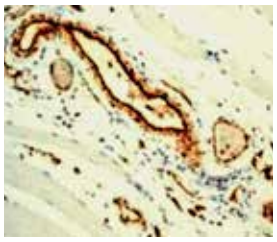
Stomach tissue stained with Anti-Caspase-3 p17 using DAB chromogen

Clone:	B-4
Isotype:	IgG2a, kappa
Source:	Mouse
Immunogen:	Human Caspase-3 p17
Specificity:	Caspase-3 p17
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD30-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD30-10M**
Xmatrx®	**AXD30-YCD, AXD30-50D**
NanoVip™®	**AXD30-4M**
Concentrated:	**MUD30-UC, MUD30-5UC**
Recommended Positive Control:	**FG-D30M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D30M (Xmatrx & NanoVip™)**

Caspase-3 (also designated as SCA-1, Apopain, CPP-32, Yama,) is a 32 kDa aspartate-specific cysteine protease that belongs to the ICE subfamily of Caspase family. It is a crucial executioner of apoptosis by proteolytic processing of its inactive zymogen into activated p17 and p12 fragments. During apoptotic cascade, active caspase-3 is responsible for the proteolytic cleavage of many key proteins, such as the nuclear enzyme poly (ADP-ribose) polymerase (PARP). It also cleaves and activates sterol regulatory element binding proteins (SREBPs), caspase-6, -7 and -9. High expression of caspase-3 is observed in lung, kidney, liver, heart, spleen, and cells of the immune system.

CD31 (Endothelial Cell)



Endothelial cell tissue stained with Anti-CD31 using DAB chromogen

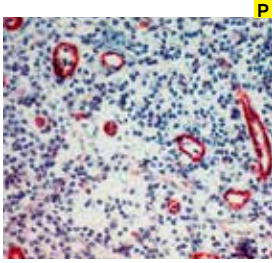
Clone:	JC/70A
Isotype:	IgG1 Kappa
Source:	Mouse
Immunogen:	Spleen membrane from a patient with hairy cell leukemia
Specificity:	CD31 antigen
Localization:	Membrane & Cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM232-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM232-10M**
Xmatrx®	**AX232-YCD, AX232-50D**
NanoVip™®	**AX232-4M**
Concentrated:	**MU232-UC, MU232-5UC**
Recommended Positive Control:	**FG-232M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-232M (Xmatrx & NanoVip™)**

Anti-CD31 monoclonal antibody JC/70A reacts with a membrane glycoprotein with an apparent size of 100 kD in endothelial cells and 130 kD in platelets. It strongly stains endothelium in normal tissue as well as benign and malignant tumor tissue. The antibody labels mega-karyocytes, platelets, and occasionally plasma cells, and weakly stains mantle zone B cells, peripheral T cells and neutrophils. This antibody stains CD31 antigen in membrane and sometimes cytoplasm of endothelial and other positive cells in normal and abnormal tissues.

CD31 (PECAM-1)

P



Lymph node tissue stained with Anti-PECAM-1 using AEC chromogen

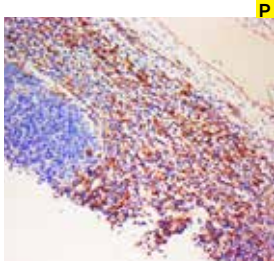
Clone:	9G11
Isotype:	IgG1
Source:	Mouse
Immunogen:	Activated human umbilical vein endothelial cells
Specificity:	CD31
Localization:	Membrane & Cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM241-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM241-10M**
Xmatrx®	**AX241-YCD, AX241-50D**
NanoVip™®	**AX241-4M**
Concentrated:	**MU241-UC, MU241-5UC**
Recommended Positive Control:	**FG-241M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-241M (Xmatrx & NanoVip™)**

CD31 (Platelet Endothelial Cell Adhesion Molecule) is a 145 kD cell surface glycoprotein that was originally defined by a monoclonal antibody which is bound to endothelial cells and also to platelets. This protein may be a component involved in the interaction of endothelial cells with coagulation factors, platelets, and the subendothelial matrix. The antibody has been shown to be specific for CD31 and reacts mainly with platelets, monocytes, macrophages, granulocytes, and B cells.

CD31

P



Tonsil tissue stained with Anti-CD31 antibody using FAST RED chromogen

Clone:	C31.3+C31.7+C31.10
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human CD31
Specificity:	CD31
Localization:	Cytoplasm
Pre-treatment:	EZ-AR1
Manual/i6000:	HK521-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AM979-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM979-10M**
Xmatrx®	**AX979-YCD, AX979-50D**
NanoVip™®	**AX979-4M**
Concentrated:	**MU979-UC, MU979-5UC**
Recommended Positive Control:	**FG-979M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-979M (Xmatrx & NanoVip™)**

CD31 is platelet and endothelial cell adhesion molecule 1 (also known as PECAM-1), part of the immunoglobulin super family, which is involved in leukocyte migration, angiogenesis and integrin activation. It is found on the surface of platelets, monocytes, neutrophils and some type of T-cells. CD31 has various roles in vascular biology including angiogenesis, platelet function, and thrombosis. Due to the positive correlation between CD31 expression on monocytes and angiogenesis of tumors, immunohistochemical staining of CD31 can prove as a useful tool to predict the possibility of metastatic tumor angiogenesis.

CD31

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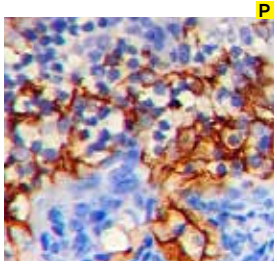


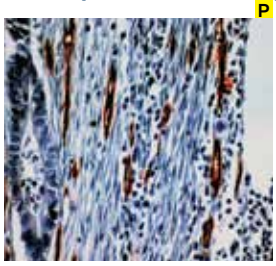
Tonsil tissue stained with Anti-CD31 using DAB Chromogen

Clone:	JC/70A
Isotype:	IgG, kappa
Source:	Mouse
Immunogen:	Human CD31
Specificity:	CD31
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC30-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC30-10M**
Xmatrx®	**AXC30-YCD, AXC30-50D**
NanoVip™®	**AXC30-4M**
Concentrated:	**MUC30-UC, MUC30-5UC**
Recommended Positive Control:	**FG-C30M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C30M (Xmatrx & NanoVip™)**

CD31, also known as PECAM-1 (platelet endothelial cell adhesion molecule 1) is a transmembrane glycoprotein belongs to immunoglobulin supergene family of adhesion molecules. The stem cells in hematopoietic system express CD31 which are used for identifying and determining concentration of these cells for bone marrow transplantation and experimental studies. The expression of CD31 is found on normal, benign and malignant endothelial cells and hence, considered to be a sensitive and specific marker for vascular differentiation. The CD31 expression levels determine the extent of tumor angiogenesis and imply rapidly growing tumor and a predictor of tumor recurrence.

CD34 (Endothelial Cell)



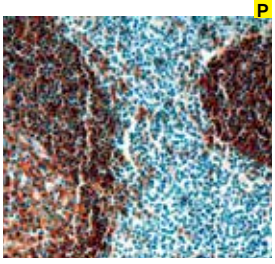
Endothelial cell tissue stained with Anti-CD34 using DAB chromogen

Clone:	QBEnd/10
Isotype:	IgG1
Source:	Mouse
Immunogen:	CD34 isolated from human placental endothelial cells
Specificity:	CD34
Localization:	Membrane
Pre-treatment:	EZ-AR2 elegance
Manual/i6000	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM236-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM236-10M**
Xmatrx®	**AX236-YCD, AX236-50D**
NanoVip™®	**AX236-4M**
Concentrated:	**MU236-UC, MU236-5UC**
Recommended Positive Control:	**FG-236M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-236M (Xmatrx & NanoVip™)**

This is an antibody to the CD34 antigen in human endothelial and hematopoietic cells. It stains positive in a variety of vascular and lymphatic tumors. QBEnd/10 may now prove to be a more specific method of evaluating vascularization than Factor VIII antibody and is an important tool for tumor evaluation. This antibody stains endothelial cell cytoplasm and cross-reacts with basement membrane collagen.

CD35



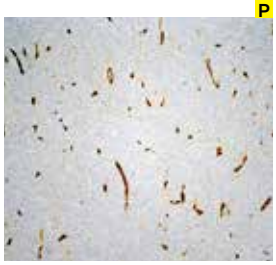
Tonsil tissue stained with Anti-CD35 using DAB chromogen

Clone:	RLB25
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Prokaryotic recombinant fusion protein corresponding to the first four complement control protein domains of the CD35 molecule
Specificity:	CD35
Localization:	Membrane
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM431-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM431-10M**
Xmatrx®	**AX431-YCD, AX431-50D**
NanoVip™®	**AX431-4M**
Concentrated:	**MU431-UC, MU431-5UC**
Recommended Positive Control:	**FG-431M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-431M (Xmatrx & NanoVip™)**

The CD35 antigen is a transmembrane monomeric glycoprotein of 60-250kD. It is also known as complement receptor 1 (CR1) or C3b/C4b receptor as it binds the complement components C3b and C4b and thereby helps clear foreign particles. By facilitating C3b and C4b cleavage by factor I and accelerating the decay of the C3 and C5 convertases, CD35 limits complement activation and produces ligands for other complement receptors.

CD34



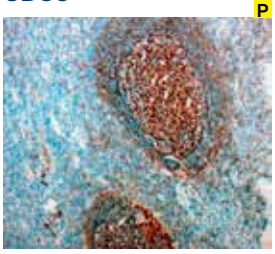
Colon Carcinoma tissue stained with Anti-CD34 using DAB chromogen

Clone:	EP88
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human CD34
Specificity:	CD34
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN779-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN779-10M**
Xmatrx®	**AY779-YCD, AY779-50D**
NanoVip™®	**AY779-4M**
Concentrated:	**NU779-UC, NU779-5UC**
Recommended Positive Control:	**FG-779N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-779N (Xmatrx & NanoVip™)**

CD34 is a cell-surface glycoprotein, it functions as a cell-cell adhesion factor. It may also mediate the attachment of stem cells to bone marrow extracellular matrixes or directly to stromal cells. CD34 positive cells are more commonly found in the umbilical cord and bone marrow as hematopoletic cells, and in vascular endothelium. In addition to stem cell recognition, CD34 is expressed by vascular endothelium; it appears that proliferating endothelial cells express this molecule in greater amounts than resting cells. In comparison to factor VIII R Antigen, CD34 is an important marker for quantifying and purifying hematopoietic progenitor/stem cells.

CD35



Tonsil stained with anti-CD35 using DAB chromogen

Clone:	SP191
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide near from the C-terminus of human CD35 protein
Specificity:	CD35
Localization:	Membrane
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN741-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AN741-10ME**
Xmatrx®	**AY741-YCDE, AY741-50DWE**
NanoVip™®	**AY741-4ME**
Concentrated:	**NU741-UCE, NU741-5UCE**
Recommended Positive Control:	**FG-741NE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-741NE (Xmatrx & NanoVip™)**

CD35, also named as erythrocyte complement receptor 1 (CR1), is a member of the complement activation (RCA) family and is located in the 'cluster RCA' region of chromosome 1. CD35 expressed by glomerular podocytes, erythrocytes, and leukocytes (B cells, subset of T cells, monocytes, macrophages, neutrophils, and eosinophils). CD35 also can be detected on follicular dendritic cells. It is a marker for the diagnosis of follicular dendritic cell sarcoma. This antibody labels dendritic cells in tonsil and spleen and glomerular podocytes in kidney.

CD38

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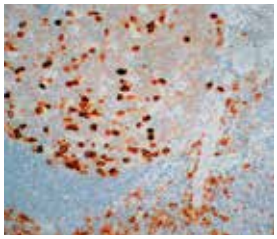

Tonsil stained with Anti-CD38 using DAB chromogen

Clone:	SP149
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide derived from the C-terminus of human CD38 protein
Specificity:	Human CD38
Localization:	Membrane and cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN769-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN769-10M**
Xmatrx®	**AY769-YCD, AY769-50D**
NanoVip™®	**AY769-4M**
Concentrated:	**NU769-UC, NU769-5UC**
Recommended Positive Control:	**FG-769N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-769N (Xmatrx & NanoVip™)**

CD38 is a transmembrane protein, that is highly expressed on thymocytes. It is also present on activated T-cells and terminally differentiated B-cells (plasma cells).It works on immature T and B cells, monocytes, and natural killer cells. CD38 participates in cell adhesion, signal transduction and calcium signaling. It is expressed at high levels in the plasma cell tumor, prostate carcinoma, stomach carcinoma, and neuroblastoma. CD38 is used as one of the plasma cell markers and its ligand is CD31 molecules.

CD4

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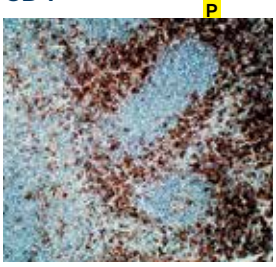

Tonsil tissue stained with Anti-CD4 using DAB chromogen

Clone:	4B12
Isotype:	IgG1
Source:	Mouse
Immunogen:	Prokaryotic recombinant protein corresponding to the external domain of the CD4 molecule
Specificity:	CD4 protein
Localization:	Membrane
Pre-treatment:	EZ-AR1/EZ-AR2 elegance
Manual/i6000:	HK546-XAK/HK547-XAK
Xmatrx:	HX031-YCD& & HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM421-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM421-10M**
Xmatrx®	**AX421-YCD, AX421-50D**
NanoVip™®	**AX421-4M**
Concentrated:	**MU421-UC, MU421-5UC**
Recommended Positive Control:	**FG-421M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-421M (Xmatrx & NanoVip™)**

CD4 is a 55-60 kD cell-surface glycoprotein, which participates in the molecular complexes involved in both T cell development and its antigen recognizing activity, by binding to the nonpolymorphic region of class II MHC. CD4 is considered as a stage marker of T cell development in the thymus, for it is expressed on the cell surface in a stage specific manner, during T cell development.

CD3e

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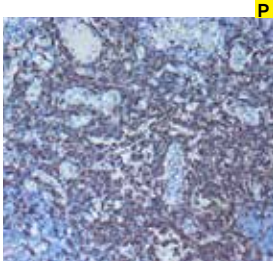

Lymph node tissue stained with Anti-CD3e using DAB chromogen

Clone:	C3e/1931
Isotype:	IgG1
Source:	Mouse
Immunogen:	Recombinant human CD3e fragment
Specificity:	CD3e
Localization:	Cell membrane
Pre-treatment:	EZ-AR1 Elegance
Manual/i6000:	HK546-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AM931-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AM931-10ME**
Xmatrx®	**AX931-YCDE, AX931-50DE**
NanoVip™®	**AX931-4ME**
Concentrated:	**MU931-UCE, MU931-5UCE**
Recommended Positive Control:	**FG-931ME (Manual & i6000)**
Recommended Microchamber Slide:	**FB-931ME (Xmatrx & NanoVip™)**

CD3e is part of the T cell receptor-CD3 (TCR-CD3) complex present on T-lymphocyte cell surface that plays an essential role in the adaptive immune response. The CD3-epsilon polypeptide together with CD3-gamma, -delta and –zeta, and the T-cell receptor alpha/beta and gamma/delta heterodimers forms the TCR-CD3 complex. The CD3 complex is closely associated with the lymphocyte cell surface with the TCR. CD3e plays an essential role in correct T-cell development. Reportedly, the CD3 complex is involved in signal transduction to the T-cell interior following antigen recognition. The CD3 antigen is first detectable in early thymocytes and probably represents one of the earliest signs of commitment to the T cell lineage.

CD4

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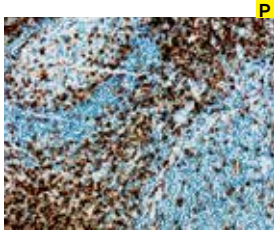


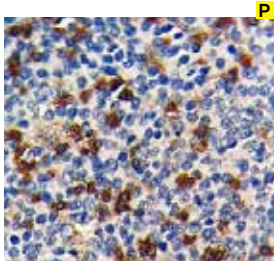
Tonsil tissue stained with Anti-CD4 using DAB chromogen

Clone:	EP204
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human CD4
Specificity:	CD4
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN721-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN721-10M**
Xmatrx®	**AY721-YCD, AY721-50D**
NanoVip™®	**AY721-4M**
Concentrated:	**NU721-UC, NU721-5UC**
Recommended Positive Control:	**FG-721N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-721N (Xmatrx & NanoVip™)**

CD4 (cluster of differentiation 4) is a glycoprotein present on the surface of immune cells like ?macrophages, T helper cells, monocytes, and dendritic cells. In lymphatic tissue systems, the CD4 positive T cells are found in big numbers in the parafollicular zone, while in the germinal centers and mantle zone CD4 positive T cells are found scattered. CD4 ?marker is expressed on a T-cell subset (helper/inducer) and is found in approximately 80% of thymocytes and in 45% of peripheral blood lymphocytes. CD4 is expressed in the majoritiy of T-cell lymphomas, including mycosis fungoides, lymphomas are CD4 positive with the exception of aggressive NK-cell leukemia and extranoda NK/T-cell lympohoma.

CD4



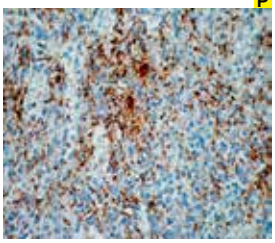
Colon tissue stained with Anti-CD4 using DAB Chromogen

Clone:	rCD4/3930
Isotype:	IgG2a
Source:	Mouse
Immunogen:	Human CD4
Specificity:	CD4
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB99-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB99-10M**
Xmatrx®	**AXB99-YCD, AXB99-50D**
NanoVip™®	**AXB99-4M**
Concentrated:	**MUB99-UC, MUB99-5UC**
Recommended Positive Control:	**FG-B99M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B99M (Xmatrx & NanoVip™)**

CD4 (cluster of differentiation 4) is a membrane glycoprotein present on the surface of immune cells like T helper cells, some B-cells, macrophages, and granulocytes. It has four immunoglobulin domains (D1, D2, D3 and D4) on extracellular surface of the cell. It has an important role in the differentiation of thymocytes and the regulation of T-lymphocyte/Blymphocyte adhesion. Its expression is also seen in specific regions of the brain. Most of the T-cell lymphomas are derived from T-helper/ regulatory cell subset, hence majority of mature T-cell neoplasms are CD4+/CD8-. Anti-CD4 antibody is used in the diagnosis of lymphoproliferative disorders to evaluate tumors with CD4 aberrant expression.

CD41/Integrin Alpha IIb



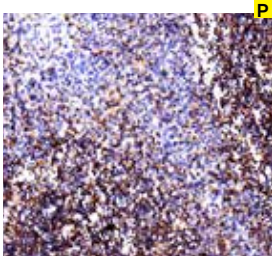
Spleen tissue stained with Anti-CD41 using DAB chromogen

Clone:	EP178
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues of human CD41/ Integrin alpha IIb protein
Specificity:	CD41/Integrin alpha IIb
Localization:	Membrane/Cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN732-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AN732-10ME**
Xmatrx®	**AY732-YCDE, AY732-50DE**
NanoVip™®	**AY732-4ME**
Concentrated:	**NU732-UCE, NU732-5UCE**
Recommended Positive Control:	**FG-732NE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-732NE (Xmatrx & NanoVip™)**

Integrin alpha chain 2b, also known as CD41, is a heterodimeric integral membrane protein. CD41 is expressed on platelets and megakaryocytes, but also on early embryonic hematopoietic stem cells. The integrin alpha chain associates with a beta 3 chain, CD61. The resulting CD41/CD61 complex is a receptor for fibronectin, fibrinogen, von Willebrand factor, vitronectin and thrombospondin, and has a crucial role in coagulation. Mutations that impair its role in coagulation result in thrombasthenia.

CD40



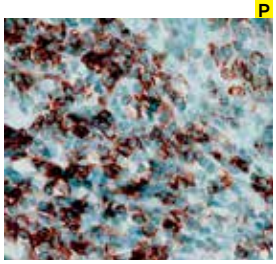
Tonsil stained with Anti-CD40 using DAB chromogen

Clone:	CL1673
Isotype:	IgG
Source:	Mouse
Immunogen:	CD40 molecule, TNF receptor super family member 5. Imunogen sequence
Specificity:	Human CD40
Localization:	Cell Membrane
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**c-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AM913-10ME**
Xmatrx®	**AX913-YCDE, AX913-50DE**
NanoVip™®	**AX913-4ME**
Concentrated:	**MU913-UCE, MU913-5UCE**
Recommended Positive Control:	**FG-913ME (Manual & i6000)**
Recommended Microchamber Slide:	**FB-913ME (Xmatrx & NanoVip™)**

CD40 or Bp50 is a member of the TNF receptor superfamily and a central regulator of anti-tumor immunity. Activation of CD40 on the cell surface of antigen presenting cells (APCs) promotes APCs ability to prime antigen-specific T cells and tumor-infiltrating myeloid cells thus enhancing their anti-tumor and anti-fibrotic activity. The ligand for CD40 is CD154, which is expressed on a variety of cell types, including activated T and B cells, endothelial and smooth muscle cells. CD40 is a promising target for carcinoma immunotherapy and CD40 activation in clinical trials demonstrated encouraging results in patients with pancreatic carcinoma, Hodgkin lymphoma, high-grade B cell lymphoma and metastatic melanoma.

CD43 (T Cell, Leukosialin)



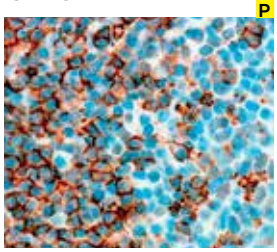
Tonsil stained with Anti-CD43 using DAB chromogen

Clone:	DFT-1
Isotype:	IgG1 Kappa
Source:	Mouse
Immunogen:	Immature pluripotential human leukemia cell line K562
Specificity:	CD43 and lymphoma or leukemia subtyping
Localization:	Membrane
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM305-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM305-10M**
Xmatrx®	**AX305-YCD, AX305-50D**
NanoVip™®	**AX305-4M**
Concentrated:	**MU305-UC, MU305-5UC**
Recommended Positive Control:	**FG-305M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-305M (Xmatrx & NanoVip™)**

The CD43 antigen, also known as leukosialin or sialophorin is a 95-110 kD protein. Monoclonal DFT-1 reacts with this protein on T cells and thymocytes and a 115-135 kD molecule on neutrophils and platelets. In addition, the CD43 epitope is present on many cells such as granulocytes, monocytes, macrophages, NK cells, platelets, activated B cells, plasma cells, epidermal Langerhans cells and also on bone marrow hematopoietic stem cells. This antibody stains CD43, a membrane-bound antigen found on all T cells, macrophages, monocytes, and epidermal Langerhans cells.

CD43



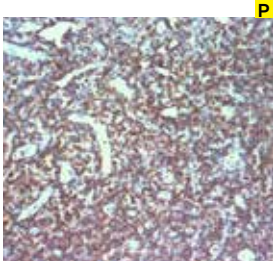
Tonsil tissue stained with Anti-CD43 using DAB chromogen

Clone:	SP55
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide derived from the human CD43
Specificity:	Human CD43
Localization:	Membrane
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN748-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN748-10M**
Xmatrx®	**AY748-YCD, AY748-50D**
NanoVip™®	**AY748-4M**
Concentrated:	**NU748-UC, NU748-5UC**
Recommended Positive Control:	**FG-748N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-748N (Xmatrx & NanoVip™)**

CD43 is one of the major glycoproteins of thymocytes and T lymphocytes. It plays a role in the physicochemical properties of the T cell surface and in lectin binding. Defects in the CD43 molecule are associated with the development of Wiskott-Aldrich syndrome. It also appears in about 25% of intestinal MALTomas.CD43 presents carbohydrate ligands to selectins. It has an extended rodlike structure that could protrude above the glycocalyx of the cell and allow multiple glycan chains to be accessible for binding. The antigen is a counter receptor for SN/Siglec1.

CD45



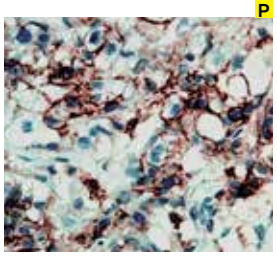
Tonsil tissue stained with Anti-CD45 using DAB chromogen

Clone:	2B11 & PD7/26
Isotype:	IgG/k
Source:	Mouse
Immunogen:	Human lymphocytes and neoplastic cells
Specificity:	CD45
Localization:	Cell membrane
Pre-treatment:	EZ-AR1
Manual/i6000:	HK521-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AM941-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM941-10M**
Xmatrx®	**AX941-YCD, AX941-50D**
NanoVip™®	**AX941-4M**
Concentrated:	**MU941-UC, MU941-5UC**
Recommended Positive Control:	**FG-941M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-941M (Xmatrx & NanoVip™)**

CD45 antigen (leukocyte common antigen), a unique and ubiquitous membrane glycoprotein with a molecular mass of about 200 kDa is expressed on almost all hematopoietic cells except for mature erythrocytes. CD45 has a functional role in hematopoietic cell activation and differentiation. Anti-CD45 (anti-leukocyte common antigen) is routinely used to aid the differential diagnosis of undifferentiated neoplasms, whenever malignant lymphoma is suspected by the morphological or clinical data. Therefore, a positive result is highly indicative of hematolymphoid origin.

CD44 (Phagocytic Glycoprotein-1, HCAM)



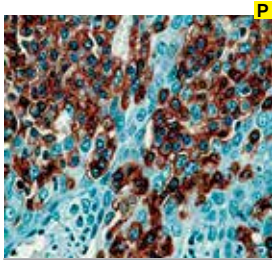
Breast Tissue stained with Anti-CD44 using DAB chromogen

Clone:	DF1485
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Cell surface glycoprotein CD44
Localization:	Membrane
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM310-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM310-10M**
Xmatrx®	**AX310-YCD, AX310-50D**
NanoVip™®	**AX310-4M**
Concentrated:	**MU310-UC, MU310-5UC**
Recommended Positive Control:	**FG-310M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-310M (Xmatrx & NanoVip™)**

CD44 (phagocytic glycoprotein-1, homing cell adhesion molecule, HCAM, CD44s) is a cell surface 80-90 kD glycoprotein important in lymphocyte homing, T-cell activation and adhesion to hyaluronate and matrix proteins. It is expressed on the surface of a wide variety of cells, among which are T-cells, B-cells, monocytes, fibroblasts, keratinocytes, vascular endothelial cells, columnar epithelium of the GI tract, and transitional epithelium of the urinary tract. This antibody stains CD44 antigen in cell membranes of various cells such as T cells, B cells, monocytes, granulocytes and even on most erythrocytes, epithelial cells, central nervous white matter, fibroblasts, skeletal muscle and on a wide variety of tumors.

CD45 (Leukocyte Common Antigen, LCA)



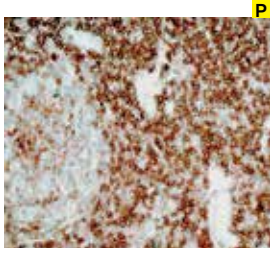
Tonsil tissue stained with Anti-LCA using DAB chromogen

Clone:	PD7/26/16 & 2B11
Isotype:	IgG1 Kappa
Source:	Mouse
Immunogen:	Human lymphocytes
Specificity:	CD45
Localization:	Membrane
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM111-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM111-10M**
Xmatrx®	**AX111-YCD, AX111-50D**
NanoVip™®	**AX111-4M**
Concentrated:	**MU111-UC, MU111-5UC**
Recommended Positive Control:	**FG-111M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-111M (Xmatrx & NanoVip™)**

This antibody against CD45 (Leukocyte Common Antigen) recognizes the 200 kD antigen found on lymphoid cells, macrophages, histiocytes, and neutrophils. CD45 is helpful in determining the leukocytic nature of anaplastic tumors. Combined with other antibodies such as those to cytokeratins and S-100 protein, this monoclonal antibody to leukocyte common antigen can be used in the characterization of undifferentiated large cell neoplasms. Most neoplastic B cells and T cells stain positive in leukemia and in non-Hodgkins lymphomas, whereas most neoplastic myeloid and erythroid cells are negative. This antibody labels lymphoid cells and to a lesser extent macrophages, histiocytes, and granulocytes.

CD45 (Leukocyte Common Antigen, LCA)



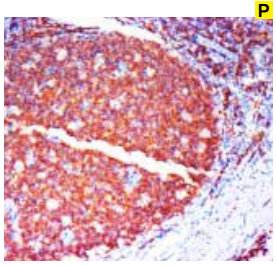
Spleen tissue stained with Anti-CD45 using DAB chromogen

Clone:	LJ 27.9
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human lymphocytes
Specificity:	Leukocyte Common Antigen
Localization:	Membrane & Cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM338-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM338-10M**
Xmatrx®	**AX338-YCD, AX338-50D**
NanoVip™®	**AX338-4M**
Concentrated:	**MU338-UC, MU338-5UC**
Recommended Positive Control:	**FG-338M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-338M (Xmatrx & NanoVip™)**

The Leukocyte Common Antigen consists of a family of heavily glycosylated glycoproteins of apparent MW 180-240kD. CD45 may function in the regulation of L-selectin (CD62L), in regulation of B-lymphocyte negative and positive selection and in T-cell activation. It stains lymphocytes, monocytes, eosinophils, and also neoplastic cells of lymphoid origin. Neoplastic B cells and T cells in leukemia and in non-Hodgkin's lymphomas stain positive. This antibody stains CD45 antigen in membrane and cytoplasm of the majority of human leukocytes.

CD45RA



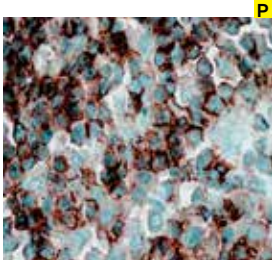
Tonsil tissue stained with Anti-CD45RA antibody using DAB chromogen

Clone:	PTPRC/1131
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human CD45RA
Specificity:	CD45RA
Localization:	Membrane
Pre-treatment:	EZ-AR1
Manual/i6000:	HK521-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AM983-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM983-10M**
Xmatrx®	**AX983-YCD, AX983-50D**
NanoVip™®	**AX983-4M**
Concentrated:	**MU983-UC, MU983-5UC**
Recommended Positive Control:	**FG-983M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-983M (Xmatrx & NanoVip™)**

CD45RA is one of the isoforms of the CD45 protein family, more commonly known as Protein Tyrosine Phosphatase Receptor type C or PTPRC. CD45 is a PTP (protein phosphatase receptor) protein whose primary function is involved with cell signaling to regulate processes such as cell growth, differentiation, mitotic cycle and oncogeneic transformation. In Immunohistochemistry, CD45 stains are used to differentiate amongst immune cell types. CD45 RA is particularly found on na?ve T lymphocytes.

CD45 Cocktail (Leukocyte Common Antigen, LCA)



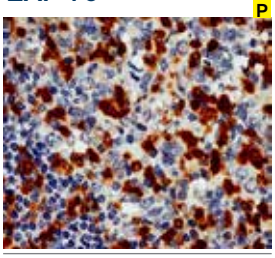
Anti-LCA positivity on Anaplastic Large Cell Lymphoma stained using DAB chromogen

Clone:	MEM55+L J 27.9
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human lymphocytes
Specificity:	CD45
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM371-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM371-10M**
Xmatrx®	**AX371-YCD, AX371-50D**
NanoVip™®	**AX371-4M**
Concentrated:	**MU371-UC, MU371-5UC**
Recommended Positive Control:	**FG-371M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-371M (Xmatrx & NanoVip™)**

CD45 (LCA) is a transmembrane protein-tyrosine-phosphatase. The LCA family includes a group of proteins present on all mature B and T lymphocytes, thymocytes, macrophages, spleen, lymph node, chronic lymphatic leukemia cells, bone marrow, thymus, and granulocytes. It is absent in brain, kidney, liver, heart, erythrocytes, platelets, and normal serum. This antibody may be useful in the evaluation of malignant lymphoma and nonlymphoid tumors. Neoplastic B and T cells in leukemia and in non-Hodgkin's lymphoma stain positive and hence can be distinguished from sarcomas and carcinomas. This antibody stains CD45 antigen on the membrane of most leukocytes.

ZAP-70



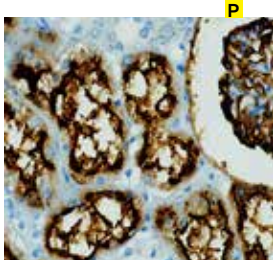
Tonsil tissue stained with Anti-ZAP-70 using DAB chromogen

Clone:	ZAP70-C3
Isotype:	IgG2a
Source:	Mouse
Immunogen:	Human ZAP-70
Specificity:	ZAP-70
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM544-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM544-10M**
Xmatrx®	**AX544-YCD, AX544-50D**
NanoVip™®	**AX544-4M**
Concentrated:	**MU544-UC, MU544-5UC**
Recommended Positive Control:	**FG-544M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-544M (Xmatrx & NanoVip™)**

ZAP-70 is an abbrevation for Zeta-chain-associated protein kinase 70 (70 is the molecular weight in kD). The protein is a member in the protein-tyrosine kinase family. ZAP-70 protein is expressed in leukemic cells of approximately 25% of Chronic Lymphocytic Leukemia (CLL) cases. ZAP-70 expression is an excellent surrogate marker for the distinction between the Ig-mutated (ZAP-70 negative) and Ig-unmutated (ZAP-70 positive) CLL subtypes and can identify patient groups with divergent clinical courses. The ZAP-70 positive Ig-unmutated CLL cases have a poorer prognosis.

CD10



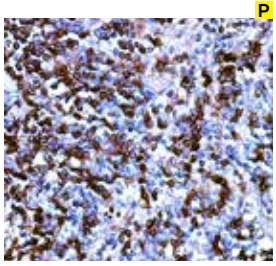
Kidney tissue stained with Anti-CD10 using DAB Chromogen

Clone:	MME/6461
Isotype:	IgG2b, kappa
Source:	Mouse
Immunogen:	Human CD10
Specificity:	CD10
Localization:	Mem & Cyt
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD39-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD39-10M**
Xmatrx®	**AXD39-YCD, AXD39-50D**
NanoVip™®	**AXD39-4M**
Concentrated:	**MUD39-UC, MUD39-5UC**
Recommended Positive Control:	**FG-D39M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D39M (Xmatrx & NanoVip™)**

CD10 (also known as Common Acute Lymphocytic Leukemia Antigen, CALLA, neutral endopeptidase (NEP) and Neprilysin) is a 100kDa type II integral membrane glycoprotein with neutral metalloendopeptidase activity. It is a zinc-dependent metalloprotease enzyme that cleaves and inactivates several peptide hormones including glucagon, enkephalins, substance P, neurotensin, oxytocin, bradykinin, Angiotensins I and II.

CD2



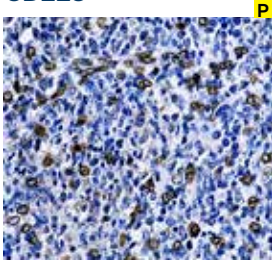
Lymph Node tissue stained with Anti-CD2 with DAB chromogen

Clone:	LFA2/7106
Isotype:	IgG2b, kappa
Source:	Mouse
Immunogen:	Human CD2
Specificity:	CD2
Localization:	Membrane
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD29-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD29-10M**
Xmatrx®	**AXD29-YCD, AXD29-50D**
NanoVip™®	**AXD29-4M**
Concentrated:	**MUD29-UC, MUD29-5UC**
Recommended Positive Control:	**FG-D29M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D29M (Xmatrx & NanoVip™)**

CD2 also designated as Lymphocyte Function Antigen 2 (LFA-2), sheep red blood cell receptor (SRBC-R), erythrocyte receptor, and T11, is a 40 kDa monomeric type I transmembrane glycoprotein that belongs to immunoglobulin (Ig) superfamily. It is a cell-adhesion molecule that binds with CD58, a surface glycoprotein expressed by antigen presenting cells (APCs) and other target cells. Moreover, CD2 is also a co-stimulatory receptor which is involved in cellular functions such as T-cell activation, NK cell activation, Thymocyte development, immunological synapse formation through T cell-APC binding and actin cytoskeleton rearrangement.

CD223



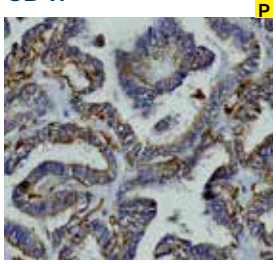
Tonsil tissue stained with Anti-CD223 using DAB Chromogen

Clone:	D-8
Isotype:	IgG2b, kappa
Source:	Mouse
Immunogen:	Human CD223
Specificity:	CD223
Localization:	Membrane
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD50-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD50-10M**
Xmatrx®	**AXD50-YCD, AXD50-50D**
NanoVip™®	**AXD50-4M**
Concentrated:	**MUD50-UC, MUD50-5UC**
Recommended Positive Control:	**FG-D50M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D50M (Xmatrx & NanoVip™)**

CD223, also referred to as LAG-3, is a 70-kDa surface glycoprotein belonging to the Ig superfamily and sharing homology with CD4. It exhibits a greater affinity for binding to MHC class II than CD4 and primarily functions in the inhibition of T cell activation and homeostatic proliferation. CD223 is expressed on activated T cells, including regulatory T cells and NK cells, with higher levels seen in CD8+ T cells than CD4+ T cells. Co-expression of CD223 and CD49b has been proposed as a marker for identifying Type 1 regulatory T cells (Tr1 cells). CD223's role as a high-affinity MHC class II ligand and its association with Tr1 cells highlights its significance in carcinoma diagnosis and immunotherapeutic approaches.

CD47



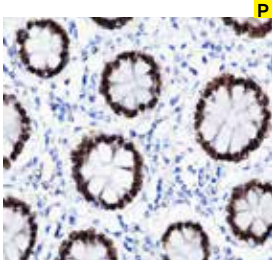
Ovarian Carcinoma tissue stained with Anti-CD47 using DAB chromogen

Clone:	CD47/3019
Isotype:	IgG2b, kappa
Source:	Mouse
Immunogen:	Human CD47
Specificity:	CD47
Localization:	Membrane
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD19-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD19-10M**
Xmatrx®	**AXD19-YCD, AXD19-50D**
NanoVip™®	**AXD19-4M**
Concentrated:	**MUD19-UC, MUD19-5UC**
Recommended Positive Control:	**FG-D19M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D19M (Xmatrx & NanoVip™)**

CD47, also designated as integrin-associated protein (IAP), is a 50kDa five-pass transmembrane protein that plays a role in the regulation of cation fluxes across cell membranes. It also binds with the C-terminal cell binding domain of thrombospondin (SIRPa) and leads to inhibition of macrophage phagocytosis towards CD47-expressing cells. In this way, CD47 serves as "don't eat me" signal or a marker of "self", functioning as an innate immune checkpoint. CD47 is expressed on normal, healthy hematopoietic stem cells (HSC), brain, mesenchymal cells, epithelial cells, endothelial cells, fibroblasts and is overexpressed in many types of carcinoma.

CDX2



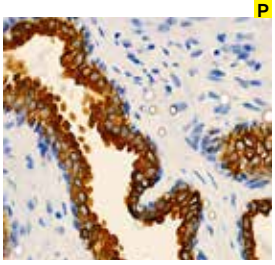
GIST tissue stained with Anti-CDX2 using DAB Chromogen

Clone:	CDX2/1690
Isotype:	IgG2b, kappa
Source:	Mouse
Immunogen:	Human CDX2
Specificity:	CDX2
Localization:	Nuclear
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM923-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM923-10M**
Xmatrx®	**AX923-YCD, AX923-50D**
NanoVip™®	**AX923-4M**
Concentrated:	**MU923-UC, MU923-5UC**
Recommended Positive Control:	**FG-923M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-923M (Xmatrx & NanoVip™)**

CDX2 (Caudal Type Homeobox 2) is a homeobox domain-containing transcription factor belongs to murine CDX family. It is an important protein in intestinal development, anterior to posterior patterning of the intestinal epithelium, proliferation and maintenance of the intestinal phenotype. CDX2 is localized in the nuclei of epithelial cells throughout the intestine.

CK7/18



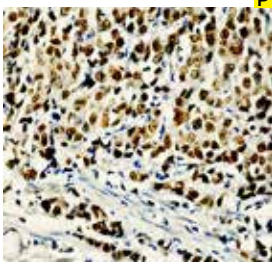
Benign Prostate Hyperplasia tissue stained with Anti-CK7/18 using DAB Chromogen

Clone:	KRT7.18/8899
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human CK7/18
Specificity:	CK7/18
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD52-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD52-10M**
Xmatrx®	**AXD52-YCD, AXD52-50D**
NanoVip™®	**AXD52-4M**
Concentrated:	**MUD52-UC, MUD52-5UC**
Recommended Positive Control:	**FG-D52M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D52M (Xmatrx & NanoVip™)**

CK7/18, composed of low molecular weight cytokeratins CK7 and CK18, is typically found in the luminal cells of the normal breast. When combined with p63 and CK5/14 markers, CK7/18 helps differentiate non-invasive from invasive breast lesions and characterizes epithelial proliferations. It aids in distinguishing various breast lesions by identifying basal marker expression in usual ductal hyperplasia (UDH), whereas atypical ductal hyperplasia (ADH) and low-grade ductal carcinoma in situ (LGDCIS) are typically basal marker-negative.

C-myc



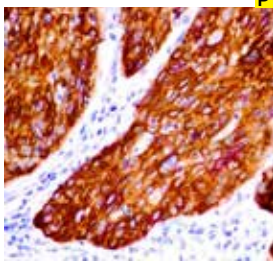
Colon tissue stained with Anti-C-myc using DAB chromogen

Clone:	MYC/7854R
Isotype:	IgG, kappa
Source:	Rabbit
Immunogen:	Human C-myc
Specificity:	C-myc
Localization:	Nuclear
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AND22-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AND22-10M**
Xmatrx®	**AYD22-YCD, AYD22-50D**
NanoVip™®	**AYD22-4M**
Concentrated:	**NUD22-UC, NUD22-5UC**
Recommended Positive Control:	**FG-D22N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D22N (Xmatrx & NanoVip™)**

C-myc (also known as myc) is a transcription factor belongs to the Myc family together with l-Myc and n-Myc. It has a basic helix-loop-helix leucine zipper (bHLH-ZIP) motif required for dimerization and DNA-binding. C-myc acts as a proto-oncogene and regulates the cellular changes including increased production of nucleic acids, proteins and lipids that are required for rapid cellular proliferation. C-myc is ubiquitously expressed in almost all cell types during embryogenesis and is upregulated in many carcinoma types especially in aggressive, poorly differentiated tumors. Amplification of the c-Myc gene was first discovered in patients with Burkitt lymphoma and is found in several types of human tumors including lung, breast and colon carcinomas.

Cytokeratin 5



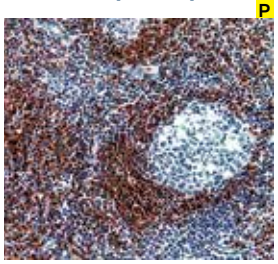
Skin BCC tissue stained with Anti-Cytokeratin 5 using DAB Chromogen

Clone:	rKRT5/6398
Isotype:	IgG2a, kappa
Source:	Mouse
Immunogen:	Human Cytokeratin 5
Specificity:	Cytokeratin 5
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD38-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD38-10M**
Xmatrx®	**AXD38-YCD, AXD38-50D**
NanoVip™®	**AXD38-4M**
Concentrated:	**MUD38-UC, MUD38-5UC**
Recommended Positive Control:	**FG-D38M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D38M (Xmatrx & NanoVip™)**

Cytokeratin 5 is a 58kDa type II (basic) intermediate filament protein belongs to the cytokeratin family. It plays a crucial role in organization of cell adhesion, tissue specialization and function to maintain structural integrity of the integument. CK5 expression is seen in keratinized and non-keratinized stratified squamous epithelia, myoepithelial cells in normal mammary glands, glandular epithelia and normal basal cells in prostate glands. Anti-Cytokeratin 5 is a useful marker in differential diagnosis of Epithelial Mesotheliomas from metastatic pulmonary adenocarcinomas.

CD45RC (T Cell)



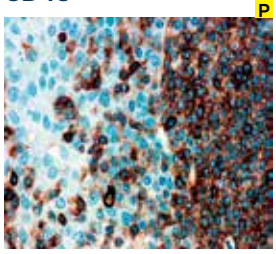
Tonsil tissue stained with Anti-CD45RC using DAB chromogen

Clone:	MT2
Isotype:	IgG1
Source:	Mouse
Immunogen:	Lymph node involving chronic lymphatic leukemia
Specificity:	CD45RC
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM156-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM156-10M**
Xmatrx®	**AX156-YCD, AX156-50D**
NanoVip™®	**AX156-4M**
Concentrated:	**MU156-UC, MU156-5UC**
Recommended Positive Control:	**FG-156M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-156M (Xmatrx & NanoVip™)**

Clone MT2 has previously been described as CD45RA but due to its reactivity with transfectants and its identical staining pattern with ORTH75E4 it is now recognized as CD45RC. Clone MT2 reacts with membrane-bound antigen which is present on mature, non-activated T and B cells. It reacts with medullary thymocytes, with mantle zone lymphocytes in follicles of lymph nodes and spleen, with lymphocytes of the paracortex, with peripheral blood B cells, with T suppressor/cytotoxic cells and NK cells. This clone is used for differentiation of non-Hodgkin lymphomas.

CD48



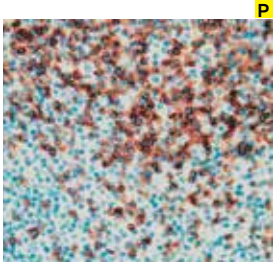
Tonsil tissue stained with Anti-CD48 using DAB chromogen

Clone:	EP148
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues of human CD48 protein
Specificity:	CD48 protein
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN721-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AN721-10ME**
Xmatrx®	**AN721-YCDE, AN721-50DE**
NanoVip™®	**AN721-4ME**
Concentrated:	**NU721-UCE, NU721-5UCE**
Recommended Positive Control:	**FG-721NE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-721NE (Xmatrx & NanoVip™)**

CD48 (BLAST1) is an activation-associated, glycosylphosphatidylinositol (GPI)-anchored cell surface glycoprotein expressed primarily in mitogen-stimulated human lymphocytes. CD48 is expressed on T cells, B cells, thymocytes and splenocytes. Both normal and malignant white blood cells express CD48 on their membrane surface, but greater than 95% of CD34+ hematopoietic stem cells do not express CD48. CD48 is expressed at higher levels on human Burkitt's lymphoma cell lines, Raji and most acute myeloid leukemia cells with phenotype CD34-/CD13+/CD33+.

CD45RO (T Cell)



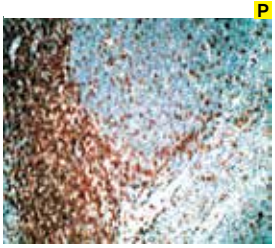
Tonsil tissue stained with Anti-CD45R0 using DAB chromogen

Clone:	UCHL-1
Isotype:	IgG 2a Kappa
Source:	Mouse
Immunogen:	IL-2 dependent T cell line CA1
Specificity:	T cells
Localization:	Membrane & Cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM113-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM113-10M**
Xmatrx®	**AX113-YCD, AX113-50D**
NanoVip™®	**AX113-4M**
Concentrated:	**MU113-UC, MU113-5UC**
Recommended Positive Control:	**FG-113M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-113M (Xmatrx & NanoVip™)**

This antibody recognizes a 185 kD molecule (CD45RO) which occurs on mature activated T cells, most thymocytes, and a sub-population of resting T cells within both the CD4 and CD8 subsets. UCHL-1 shows no reactivity with normal B or NK cells, but will react with granulocytes and monocytes. This antibody can be used as a marker of T cell lymphomas and other T cell neoplasms. The antigen has been shown to be immunologically unrelated to the lymphocyte-function-associated antigen (LFA-1), which has a similar molecular weight. This antibody stains the membrane and sometimes the cytoplasm of CD45RO positive cells.

CD5



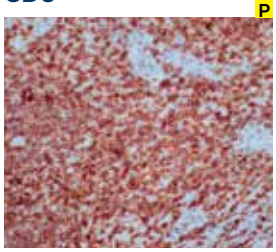
Tonsil tissue stained with Anti-CD5 using DAB chromogen

Clone:	4C7
Isotype:	IgG1 Kappa
Source:	Mouse
Immunogen:	Recombinant protein corresponding to the external domain of the CD5 molecule.
Specificity:	Human CD5 antigen, 67 kD antigen
Localization:	Membrane
Pre-treatment:	EZ-AR2 elegance
Manual/i6000	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM430-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM430-10M**
Xmatrx®	**AX430-YCD, AX430-50D**
NanoVip™®	**AX430-4M**
Concentrated:	**MU430-UC, MU430-5UC**
Recommended Positive Control:	**FG-430M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-430M (Xmatrx & NanoVip™)**

The CD5 antigen, also known as T1, is a 67 kD single chain glycoprotein expressed on normal and malignant T cells and on chronic lymphocytic leukemia cells. It is found in high density on medullary thymocytes and in low density on cortical thymocytes.

CD5



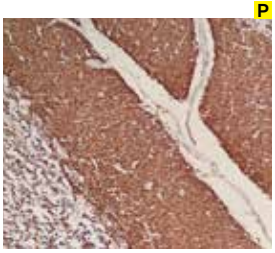
Tonsil tissue stained with Anti-CD5 using DAB chromogen

Clone:	EP77
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues in human CD5 protein.
Specificity:	Human CD5
Localization:	Membrane
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN824-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN824-10M**
Xmatrx®	**AY824-YCD, AY824-50D**
NanoVip™®	**AY824-4M**
Concentrated:	**NU824-UC, NU824-5UC**
Recommended Positive Control:	**FG-824N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-824N (Xmatrx & NanoVip™)**

CD5 antibody is a T-cell associated marker that is also expressed by two B-cell neoplasms: lymphocytic leukemia and mantle cell lymphoma. CD5 antigen is expressed in 95% of thymocytes and 72% of peripheral blood lymphocytes. In tumors, CD5 is expressed on T-cell malignancies, B cell chronic lymphocytic leukemia (CLL)/small lymphocytic lymphoma (SLL), and mantle-cell lymphoma. It is a useful diagnostic tool for these tumors. In addition, anti-CD5 is helpful in diagnosis of thymic carcinoma (CD5 positive).

CD56



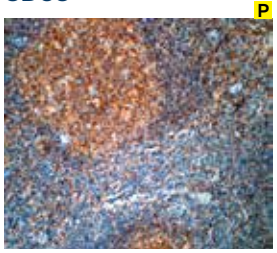
Tonsil tissue stained with Anti-CD56 using DAB chromogen

Clone:	RM372
Isotype:	IgG
Source:	Mouse
Immunogen:	Membrane preparation of a small cell lung carcinoma
Specificity:	CD56
Localization:	Membrane
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA06-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA06-10M**
Xmatrx®	**AXA06-YCD, AXA06-50D**
NanoVip™®	**AXA06-4M**
Concentrated:	**MUA06-UC, MUA06-5UC**
Recommended Positive Control:	**FG-A06M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A06M (Xmatrx & NanoVip™)**

CD56, also known as neural cell adhesion molecule, is a homophillic binding glycoprotein expressed on the cell surface of neural, glial and skeletal muscle cells. CD56 is a phenotypical marker for natural killer cells and many other immune cells, including alpha beta T cells, gamma delta T cells, dendritic cells and monocytes. Depending on the way the protein is spliced, the functions could vary vastly. In general,

CD53



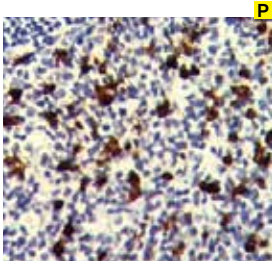
Tonsil tissue stained with Anti-CD53 using DAB chromogen

Clone:	EP179
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues of human CD53
Specificity:	CD53
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN734-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN734-10M**
Xmatrx®	**AY734-YCD, AY734-50D**
NanoVip™®	**AY734-4M**
Concentrated:	**NU734-UC, NU734-5UC**
Recommended Positive Control:	**FG-734N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-734N (Xmatrx & NanoVip™)**

Leukocyte surface antigen CD53 is a protein that in humans is encoded by the CD53 gene. The protein encoded by this gene is a member of the transmembrane 4 superfamily, also known as the tetraspanin family. The function of this family in a number of different cell types may be involved in transmembrane signal transduction and regulation of cell proliferation and differentiation, or both. CD53 is broadly expressed on leukocytes, including B cells, T cells, monocytes and granulocytes. It has been demonstrated to be a specific and reliable marker for leukocytes. This antibody strongly labels normal and neoplastic cells with hematopoietic origin.

CD57



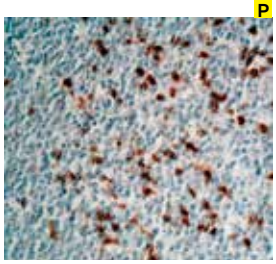
Tonsil tissue stained with Anti-CD57 using DAB Chromogen

Clone:	NK/804
Isotype:	IgGM, Kappa
Source:	Mouse
Immunogen:	Human CD57
Specificity:	CD57
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB56-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB56-10M**
Xmatrx®	**AXB56-YCD, AXB56-50D**
NanoVip™®	**AXB56-4M**
Concentrated:	**MUB56-UC, MUB56-5UC**
Recommended Positive Control:	**FG-B56M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B56M (Xmatrx & NanoVip™)**

CD57 is a marker expressed in the membrane of NK cells and other T cells such as CD8+ lymphocytes, and by a small percentage of CD4+/CD45R0+ T lymphocytes in lymph node germinal centers. CD57 is also expressed in Normal neuroectodermal cells and striated muscle. It reacts with tumors derived from neuroendocrine cells including neuroendocrine tumors of diverse origins, pheochromocytomas, paragangliomas, medulloblastoma, and varying proportions of neural tumors such as schwannomas, neurofibromas, neuromas, and granular cell tumors.

CD57 (Natural Killer Cell)



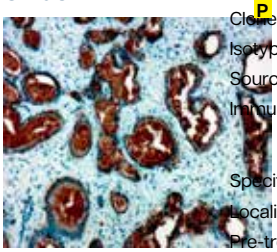
Tonsil stained with Anti-CD57 using DAB chromogen

Clone:	NK-1
Isotype:	IgM
Source:	Mouse
Specificity:	CD57 (natural killer cell, also called HNK1)
Localization:	Membrane & Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM314-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM314-10M**
Xmatrx®	**AX314-YCD, AX314-50D**
NanoVip™®	**AX314-4M**
Concentrated:	**MU314-UC, MU314-5UC**
Recommended Positive Control:	**FG-314M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-314M (Xmatrx & NanoVip™)**

Monoclonal antibody NK-1recognizes CD57, also called HNK-1 or Leu 7 antigen. It is a 110 kD myeloid, cell-associated surface glycoprotein. The antigen is common to leukocytes and neuroectodermal cells. It is present in most carcinomas with neuronal as well as glial characteristics. Tumors and normal cells derived from the neuroectoderm or the APUD (diffuse neuroendocrine system) tumors also express this antigen. Anti-natural killer cell antibodies used in combination with anti-S-100 antibodies aid in the differentiation of Schwann cell neoplasms from histologically similar fibrosarcomas. This antibody stains CD57 on the membrane of natural killer cells in both normal and abnormal tissues.

CD63



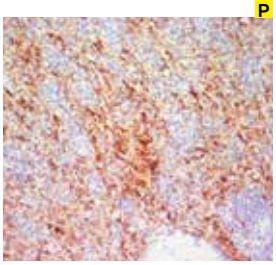
Prostate tissue stained with Anti-CD63 using DAB chromogen

Clone:	EP211
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues of human CD63
Specificity:	CD63
Localization:	Membrane/Cytoplasm
Pre-treatment:	EZ-AR1
Manual/i6000:	HK521-XAK
Xmatrx:	HX031-YCD& & HX032-YCD
NanoVIP:	HX044-08XN

Ready-to-Use (Manual):	**AN720-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AN720-10ME**
Xmatrx®	**AN720-YCDE, AN720-50DE**
NanoVip™®	**AN720-4ME**
Concentrated:	**NU720-UCE, NU720-5UCE**
Recommended Positive Control:	**FG-720NE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-720NE (Xmatrx & NanoVip™)**

CD63, a 53 kD lysosomal membrane glycoprotein is expressed on activated platelets, monocytes and macrophages, also weakly expressed on granulocytes, T cell and B cells. It is strongly expressed in early melanoma, breast carcinoma, merkel cell carcinoma, astrocytoma and lung adenocarcinoma. Recent reports also indicate that CD63 is a good prognostic biomarker for human astrocytomas and earlier stages of lung carcinoma.

CD61/Integrin β3



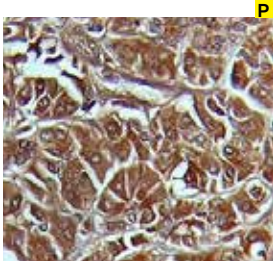
Spleen tissue stained with Anti-CD61/Integrin β3 using DAB chromogen

Clone:	ITGB3/2145
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Recombinant human ITGB3 protein fragment
Specificity:	CD61
Localization:	Cell membrane
Pre-treatment:	EZ-AR1
Manual/i6000:	HK521-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AM942-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AM942-10ME**
Xmatrx®	**AX942-YCDE, AX942-50DE**
NanoVip™®	**AX942-4ME**
Concentrated:	**MU942-UCE, MU942-5UCE**
Recommended Positive Control:	**FG-942ME (Manual & i6000)**
Recommended Microchamber Slide:	**FB-942ME(Xmatrx & NanoVip™)**

Monoclonal anti-CD61 reacts with human integrin beta 3 (GPIIIa, vitronectin receptor beta chain). The protein detectable is a complex of CD41 and CD61. The apparent molecular weight of the GPIIIa by SDS-PAGE is 105kDa reduced and 90kDa unreduced. Ligands are fibronectin, fibrinogen, von Willebrand factor, vitronectin and thrombospondin. Residues 237-248 of GPIIIa or CD61 are critical in adhesive protein binding. Integrins are integral cell-surface proteins composed of an alpha chain and a beta chain. A given chain may combine with multiple partners resulting in different integrins.

CD64



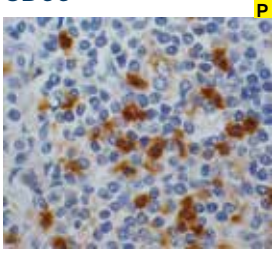
Pancreas tissue stained with Anti-CD64 using DAB Chromogen

Clone:	C-6
Isotype:	IgM
Source:	Mouse
Immunogen:	Human CD64
Specificity:	CD64
Localization:	Mem & Cyt
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA56-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA56-10M**
Xmatrx®	**AXA56-YCD, AXA56-50D**
NanoVip™®	**AXA56-4M**
Concentrated:	**MUA56-UC, MUA56-5UC**
Recommended Positive Control:	**FG-A56M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A56M (Xmatrx & NanoVip™)**

CD64 (also known as FcγRI, FcR I) is a 72kDa single chain type I high-affinity Fc-gamma receptor integral transmembrane glycoprotein belongs to the Immunoglobulin Superfamily. It plays an important role in the activation and inhibition of both innate and adaptive immune responses such as degranulation, endocytosis, phagocytosis, antigen presentation, ADCC (antibody-dependent cellular toxicity), cytokine release, superoxide generation and B cell proliferation. CD64 binds with a signaling FcRγ homodimer to form the functional high affinity FcγRI complex which is regulated by IFN-γ stimulation. The expression of CD64 is found on monocytes, macrophages, activated granulocytes, dendritic cells and early myeloid lineage cells.

CD66



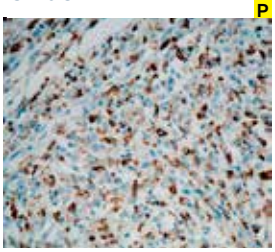
Reactive node tissue stained with Anti-CD66 using DAB chromogen

Clone:	BY114
Isotype:	IgG
Source:	Mouse
Immunogen:	Human B cell lymphoma
Specificity:	CD66 antigen
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM325-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM325-10M**
Xmatrx®	**AX325-YCD, AX325-50D**
NanoVip™®	**AX325-4M**
Recommended Positive Control:	**FG-325M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-325M (Xmatrx & NanoVip™)**

Clone BY114, also known as NCA90 (Non-cross reacting antigen 90), is a unique monoclonal antibody that recognizes CD66CE which is a 90 kD antigen found principally on neutrophils. In contrast to many antibodies which recognize granulocyte-associated antigens present on other leukocytes, this antibody recognizes only granulocytes. The anti-CD66 monoclonal antibody, therefore, is very useful for differentiation of normal and neoplastic cells of granulocyte origin. Monoclonal antibody BY114 can be used to stain neutrophils in tonsil, spleen, liver, kidney, pancreas, and lung.

CD68



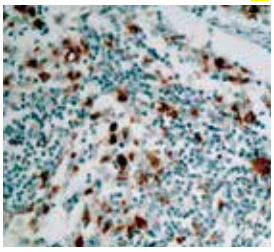
Histocytoma tissue stained with Anti-CD68 using DAB chromogen

Clone:	CD68/G2
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human CD68
Specificity:	CD68
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM549-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM549-10M**
Xmatrx®	**AX549-YCD, AX549-50D**
NanoVip™®	**AX549-4M**
Concentrated:	**MU549-UC, MU549-5UC**
Recommended Positive Control:	**FG-549M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-549M (Xmatrx & NanoVip™)**

The CD68 antigen is a heavily glycosylated transmembrane protein of 87-115 kD which is specifically expressed by tissue macrophages, Langerhans cells and at low levels by dendritic cells. This antibody is capable of staining monocytes, Kupffer cells, osteoclasts, granulocytes and their precursors; Lymphomas are negative or show a few granules. This antibody may be useful for the identification of myelomonocytic and histiocytic tumors. CD68 may help to distinguish malignant fibrous histiocytoma from other pleomorphic sarcomas.

CD68



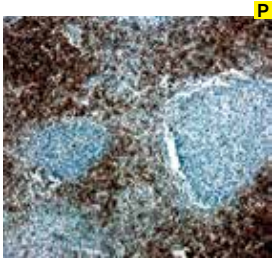
Lymph node tissue stained with Anti-CD68 using DAB chromogen

Clone:	KP1
Isotype:	IgG1 Kappa
Source:	Mouse
Immunogen:	Lysosomal granules from human lung macrophage
Specificity:	Macrophages
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM416-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM416-10M**
Xmatrx®	**AX416-YCD, AX416-50D**
NanoVip™®	**AX416-4M**
Concentrated:	**MU416-UC, MU416-5UC**
Recommended Positive Control:	**FG-416M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-416M (Xmatrx & NanoVip™)**

CD68 antigen, a 110-kD type 1 membrane glycoprotein, appears in endosomes or lysosomes (long variant) and to a lesser extent on the cell surface (short variant). It is highly expressed by blood monocytes and tissue macrophages. It is also reported to be expressed in immature myeloid cells, lymphoma, many tumor cell lines, and some epithelial tumors, although the labeling is usually less intense than in macrophages. Clone KP1 reacts strongly with a fixative-resistant epitope of CD68 protein that is expressed by virtually all macrophages of the human body. The CD68 antibody can be used as part of a panel in the evaluation of poorly differentiated neoplasms in cytological materials.

CD7



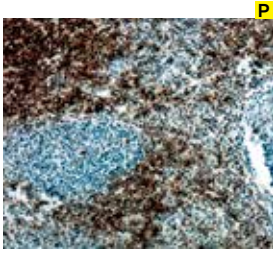
Tonsil tissue stained with Anti-CD7 using DAB Chromogen

Clone:	LP15
Isotype:	IgG2b
Source:	Mouse
Immunogen:	CD7
Specificity:	CD7
Localization:	Membrane
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM702-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM702-10M**
Xmatrx®	**AX702-YCD, AX702-50D**
NanoVip™®	**AX702-4M**
Concentrated:	**MU702-UC, MU702-5UC**
Recommended Positive Control:	**FG-702M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-702M (Xmatrx & NanoVip™)**

The CD7 molecule is membrane-bound glycoprotein of 40kD and is the earliest T Cell specific antigen to be expressed in lymphocyetes. CD7 antigen is also the only early marker to persist throughout differentiation. The function and role of the CD7 molecule has not yet been fully identified although the activation of T cells with gamma/ delta receptors has been proposed based on mAb-activation. CD7 antigen is reported to be found on a majority of peripheral blood T cells, most natural killer cells and thymocytes.

CD7



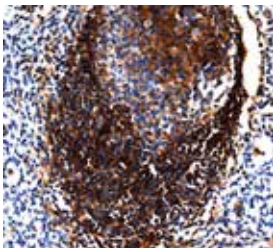
Tonsil tissue stained with Anti-CD7 using DAB chromogen

Clone:	SP94
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to the internal region of human CD7 protein
Specificity:	Human CD7
Localization:	Membrane
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN761-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN761-10M**
Xmatrx®	**AY761-YCD, AY761-50D**
NanoVip™®	**AY761-4M**
Concentrated:	**NU761-UC, NU761-5UC**
Recommended Positive Control:	**FG-761N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-761N (Xmatrx & NanoVip™)**

Anti-CD7 (SP94) Rabbit Monoclonal Primary Antibody (anti-CD7 (SP94) is directed against the 40kD transmembrane glycoprotein, CD7 is expressed on the majority of immature and mature T-lymphocytes, and T cell leukemia. It is also found on natural killer cells, a small subpopulation of normal B cells and on malignant B cells. Anti-CD7 (SP94) may be used to aid in the identification of T cell lymphomas. This gene encodes a transmembrane protein which is a member of the immunoglobulin superfamily.

CD73



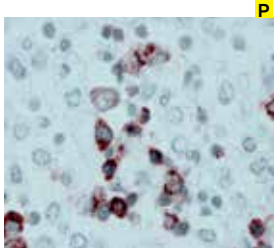
Tonsil tissue stained with Anti-CD73 using DAB chromogen

Clone:	1D7
Isotype:	IgG
Source:	Mouse
Immunogen:	Purified recombinant fragment of NT5E expressed in E. Coli.
Specificity:	Human CD27
Localization:	Cell Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM904-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AM904-10ME**
Xmatrx®	**AX904-YCDE, AX904-50DE**
NanoVip™®	**AX904-4ME**
Concentrated:	**MU904-UCE, MU904-5UCE**
Recommended Positive Control:	**FG-904ME (Manual & i6000)**
Recommended Microchamber Slide:	**FB-904ME(Xmatrx & NanoVip™)**

CD73 or NT5E (ecto-5'-nucleotidase) is a GPI-anchored enzyme that generates extracellular adenosine, a potent immunosuppressive metabolite in the tumor microenvironment. CD73–adenosinergic pathway contributes to tumor immune escape in animal mouse models of carcinoma and was also shown to suppress antitumor T cells in human ovarian carcinoma. Monoclonal antibody treatment targeting CD73 has been shown to delay ovarian tumor growth in mice and to rescue human T-cell functions when co-cultured with CD73-expressing human ovarian carcinoma cells.

CD71 (Transferrin Receptor)



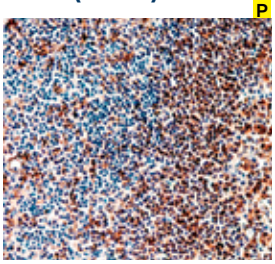
Tonsil tissue stained with Anti-CD71 using DAB chromogen

Clone:	H68.4
Isotype:	IgG1
Source:	Mouse
Immunogen:	Baculovirus-expressed, recombinant human Transferrin Receptor
Specificity:	CD71 (Transferrin Receptor)
Localization:	Membrane & Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM354-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM354-10M**
Xmatrx®	**AX354-YCD, AX354-50D**
NanoVip™®	**AX354-4M**
Concentrated:	**MU354-UC, MU354-5UC**
Recommended Positive Control:	**FG-354M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-354M (Xmatrx & NanoVip™)**

This antibody reacts with CD71 antigen (also known as T9 or Transferrin Receptor), a homodimeric type II membrane protein consisting of two identical subunits of approximately 95 kD covalently linked by two intermolecular disulfide bonds. Transferrin Receptor is present on 10% of thymocytes, activated lymphocytes, myelocytes, and nucleated erythrocyte precursors. Broad distribution of Transferrin Receptor (TR) has been observed on carcinomas and sarcomas of various origins and malignant lymphomas.

CD74 (B Cell)



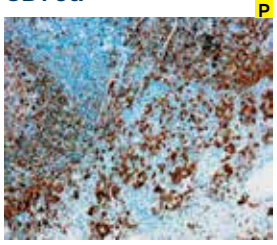
Tonsil tissue stained with Anti-CD74 using DAB chromogen

Clone:	LN2
Isotype:	IgG1
Source:	Mouse
Immunogen:	Nuclei from diffuse histiocytic lymphoma cells (SU-DHL-4)
Specificity:	CD74
Localization:	Membrane & Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM153-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM153-10M**
Xmatrx®	**AX153-YCD, AX153-50D**
NanoVip™®	**AX153-4M**
Concentrated:	**MU153-UC, MU153-5UC**
Recommended Positive Control:	**FG-153M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-153M (Xmatrx & NanoVip™)**

LN2 recognizes the 35 kD Class II invariant chain expressed in the nuclear membrane and cytoplasm of B lymphocytes and is suitable for differentiating between B-cell and T-cell lymphomas. It reacts with a nuclear membrane antigen expressed by B cells of mantle zones and germinal centers, and with the nuclear membrane of interdigitating cells in lymph nodes. It also reacts with Reed-Sternberg cells and their variants in Hodgkin's disease, and sporadically with antigens expressed by tumor cells of epithelial origin. This antibody stains nucleus, membrane and cytoplasm of B-cells.

CD79a



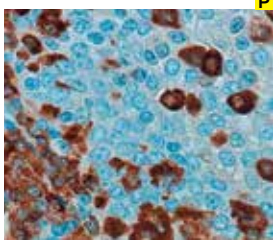
Lymph node tissue stained with Anti-CD79a using DAB chromogen

Clone:	EP82
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide derived from the extracellular region of human CD79a protein
Specificity:	CD79a
Localization:	Membrane/Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN719-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN719-10M**
Xmatrx®	**AY719-YCD, AY719-50D**
NanoVip™®	**AY719-4M**
Concentrated:	**NU719-UC, NU719-5UC**
Recommended Positive Control:	**FG-719N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-719N (Xmatrx & NanoVip™)**

CD79 consist of two proteins, CD79a (mb-1) and CD79b (B29). CD79a recognizes the Ig-alpha protein, and CD79b recognizes the Ig-beta protein of the B-cell antigen component of the B-lymphocyte antigen receptor. CD79a is an excellent marker for identification of normal and neoplastic B lymphocytes. It has been found to be co-expressed with CD3 in 10% of cases of T-lymphoblastic leukemia/lymphoma. Antibodies to CD79α may also be useful in the differential diagnosis of Hodgkin's disease.

CD79a



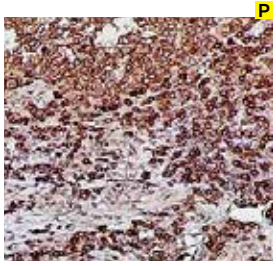
Tonsil tissue stained with Anti-CD79a using DAB chromogen

Clone:	SP18
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide derived from N-terminus of human CD79a protein
Specificity:	Human CD79a
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN767-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN767-10M**
Xmatrx®	**AY767-YCD, AY767-50D**
NanoVip™®	**AY767-4M**
Concentrated:	**NU767-UC, NU767-5UC**
Recommended Positive Control:	**FG-767N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-767N (Xmatrx & NanoVip™)**

CD79 consist of two proteins, CD79a (mb-1) and CD79b (B29). CD79a recognizes the Ig-alpha protein, and CD79b recognizes the Ig-beta protein of the B-cell antigen component of the B-lymphocyte antigen receptor. The CD79a protein is present on the surface of B-cells throughout their life cycle, and is absent on all other healthy cells and is an excellent marker for identification of normal and neoplastic B lymphocytes. The protein remains present when B-cells transform into active plasma cells, and is also present in virtually all B-cell neoplasms, including B-cell lymphomas, plasmacytomas, and myelomas. It is also present in abnormal lymphocytes associated with some cases of Hodgkin's disease.

CD79a



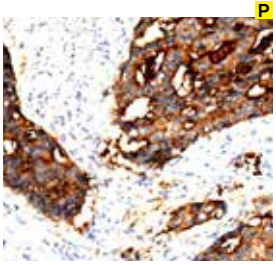
Appendicitis Tissue stained with Anti-CD79a using DAB Chromogen

Clone:	IGA/515
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human CD79a
Specificity:	CD79a
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC61-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC61-10M**
Xmatrx®	**AXC61-YCD, AXC61-50D**
NanoVip™®	**AXC61-4M**
Concentrated:	**MUC61-UC, MUC61-5UC**
Recommended Positive Control:	**FG-C61M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C61M (Xmatrx & NanoVip™)**

CD79a is a B lymphocyte antigen receptor which contains a cytoplasmic immunoreceptor tyrosine-based activation motif (ITAM) and antigen-specific surface component Ig (immunoglobulin) which are necessary elements for BCR-mediated signaling and B cell development and function. It is found in the majority of acute leukemias of precursor B cell type, in B cell lines, B cell lymphomas, in some myelomas and absent in myeloid or T cell lines.

CEACAM1



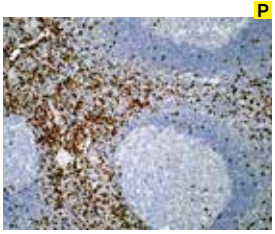
Colon Carcinoma stained with Anti-CEACAM1 antibody using DAB chromogen

Clone:	Polyclonal
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human CEACAM1
Specificity:	CEACAM1
Localization:	Mem/Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR909-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AR909-10RE**
Xmatrx®	**AW909-YCDE, AW909-50DE**
NanoVip™®	**AW909-4ME**
Concentrated:	**PU909-UPE, PU909-5UPE**
Recommended Positive Control:	**FG-909PE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-909PE (Xmatrx & NanoVip™)**

CEACAM1 (Carcinoembryonic antigen-related cell adhesion molecule also known as biliary glycoprotein?and?CD66a?is a trans-membrane multifunctional cell adhesion molecule and a member of the immunoglobulin superfamily. CEACAM1 is broadly expressed in many epithelial, endothelial, and hematopoietic cells such as monocytes and natural killer cells and has been shown to play a role in multiple cellular activities including differentiation, angiogenesis, apoptosis, tumor suppression, metastasis, and the modulation of innate and adaptive immune responses. CEACAM1 is important to tumor development and altered CEACAM1 expression has been reported in many carcinomas including metastatic melanoma, osteosarcoma and lung carcinoma.

CD8



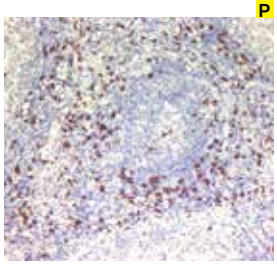
Tonsil tissue stained with Anti-CD8 using DAB chromogen

Clone:	SP16
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human CD8
Specificity:	CD8
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN740-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN740-10M**
Xmatrx®	**AY740-YCD, AY740-50D**
NanoVip™®	**AY740-4M**
Concentrated:	**NU740-UC, NU740-5UC**
Recommended Positive Control:	**FG-740N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-740N (Xmatrx & NanoVip™)**

The CD8 antigen also known as T8 or Leu2 or Lyt2 or T cell coreceptor is made of ? and ? chain linked by disulphide bond to form ?/? heterdimer of molecular weight 32kD. CD8 is a type 1 member protein in the immunoglobulin supergene family and also plays a role in the process of T-cell mediated killing. CD8 is a stage marker of T cell development in the thymus, and is expressed on ?mature peripheral T cells, most cytotoxic T cells, CD4/CD8+ thymocytes, NK cells and cortical thymocytes.

CD8a



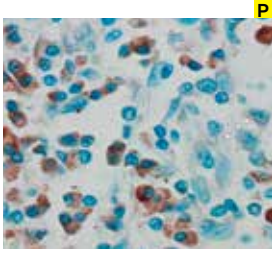
Tonsil tissue stained with Anti-CD8a using DAB chromogen

Clone:	C8/468
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human recombinant CD8 protein
Specificity:	CD8a
Localization:	Cell membrane
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM929-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AM929-10ME**
Xmatrx®	**AX929-YCDE, AX929-50DE**
NanoVip™®	**AX929-4ME**
Concentrated:	**MU929-UCE, MU929-5UCE**
Recommended Positive Control:	**FG-929ME (Manual & i6000)**
Recommended Microchamber Slide:	**FB-929ME(Xmatrx & NanoVip™)**

CD8 is a cell surface glycoprotein found on most cytotoxic T lymphocytes that mediates efficient cell-cell interactions within the immune system. The CD8 antigen acts as a coreceptor and functions either as a homodimer composed of two alpha chains (CD8 alpha/alpha) or as a heterodimer composed of one alpha and one beta chain (CD8 alpha/beta). Binding of CD8 with MHC class I molecules helps stabilize the T-cell receptor (TCR)/peptide MHC (pMHC) complex and localizes the CD8-associated protein tyrosine kinase lck (p56lck) to the CD3 complex; which aids in the activation of mature CD8+ T cells.

CD82



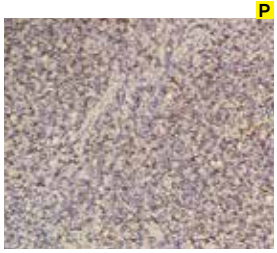
Adeno carcinoma stained with anti-CD82

Clone:	EP160
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues on the C-terminus in the intracellular domain of human CD82 protein
Specificity:	Human CD82
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN757-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN757-10M**
Xmatrx®	**AY757-YCD, AY757-50D**
NanoVip™®	**AY757-4M**
Concentrated:	**NU757-UC, NU757-5UC**
Recommended Positive Control:	**FG-757N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-757N (Xmatrx & NanoVip™)**

CD82, also known as metastasis suppressor Kangai-1 (KAI1), is a member of the tetraspanin protein family and is a metastasis suppressor implicated in biological processes ranging from fusion, adhesion and migration to apoptosis and cell-morphology alterations. In tumors, the expression of CD82 has been shown to be downregulated in tumor progression. CD82 can be activated by p53 through a consensus binding sequence in the promoter. Loss of p53 function, which is commonly observed in many types of carcinomas, may lead to the downregulation of the CD82 gene.

CD8a



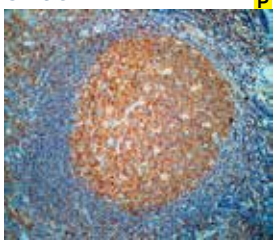
Lymph node tissue stained with Anti-CD8a using DAB chromogen

Clone:	C8/468
Isotype:	IgG
Source:	Mouse
Immunogen:	Human CD8 recombinant protein
Specificity:	CD8a
Localization:	Membrane
Pre-treatment:	EZ-AR1 Elegance
Manual/i6000:	HK546-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AMA05-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA05-10M**
Xmatrx®	**AXA05-YCD, AXA05-50D**
NanoVip™®	**AXA05-4M**
Concentrated:	**MUA05-UC, MUA05-5UC**
Recommended Positive Control:	**FG-A05M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A05M (Xmatrx & NanoVip™)**

CD8 antigen is a cell surface glycoprotein found on most cytotoxic T lymphocytes that mediate efficient cell- cell interaction within the immune system. The dimeric cell-surface glycoprotein CD8 is crucial to the positive selection of cytotoxic T cells in the thymus. It acts as a co receptor with the T-cell receptor on the T lymphocytes to recognize antigens displayed by an antigen presenting cell in the context of class 1 MHC molecules. The co receptor functions as either a homodimer composed of 2 alpha chains or as a heterodimer composed of one alpha and one beta chain. Both chains share significant homology to immunoglobulin variable light chains. CD8 expression should be further investigated for its potential to contribute to risk stratification in patients with CLL

CD95



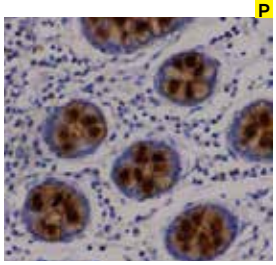
Tonsil tissue stained with Anti-CD95 using DAB chromogen

Clone:	EP208
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues of human CD95 protein
Specificity:	CD95
Localization:	Cytoplasm and membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN742-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AN742-10ME**
Xmatrx®	**AN742-YCDE, AN742-50DE**
NanoVip™®	**AN742-4ME**
Concentrated:	**NU742-UCE, NU742-5UCE**
Recommended Positive Control:	**FG-742NE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-742NE (Xmatrx & NanoVip™)**

The CD95 (Fas) protein is a cell surface receptor belonging to the tumor necrosis factor (TNF) family that transduces death signaling on engagement by multimeric Fas ligand (CD95L), of which there are eight in its membrane –bound form or in its soluble form resulting from cleavage by a putative metalloproteinase. CD95 is a widely expressed protein. During embryonic and postembryonic development, many cells die by means of apoptosis.

CD95



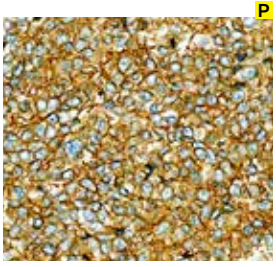
Colon tissue stained with Anti-CD95 using DAB Chromogen

Clone:	FAS/3112
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Human CD95
Specificity:	CD95
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC66-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC66-10M**
Xmatrx®	**AXC66-YCD, AXC66-50D**
NanoVip™®	**AXC66-4M**
Concentrated:	**MUC66-UC, MUC66-5UC**
Recommended Positive Control:	**FG-C66M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C66M (Xmatrx & NanoVip™)**

CD95, also designated as FAS or APO-1 or TNFRSF6, is a 46 kDa single chain type I transmembrane glycoprotein that belongs to TNF receptor superfamily. It binds to CD178 (Fas ligand) and induces apoptosis through FAS ligand pathway. It is expressed on activated mature T and B lymphocytes, neutrophils, monocytes, fibroblasts, epithelial cells and hepatocytes.

CD99



Ewing's Sarcoma tissue stained with Anti-CD99 using DAB chromogen

Clone:	EP8
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human CD99
Specificity:	CD99
Localization:	Mem/Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN850-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN850-10M**
Xmatrx®	**AY850-YCD, AY850-50D**
NanoVip™®	**AY850-4M**
Concentrated:	**NU850-UC, NU850-5UC**
Recommended Positive Control:	**FG-850N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-850N (Xmatrx & NanoVip™)**

CD99 is a transmembrane glycoprotein, also known as MIC2. It is involved in T cell adhesion, leukocyte migration and differentiation of primitive neuroectodermal cell. CD99 labels ovarian granulosa cells, pancreatic islet cells, sertoli cells, lymphocyte, CNS ependymal cells and endothelial cells. CD99 has been useful in diagnosis of Ewing's sarcoma, sex cord-stromal tumor, endocrine tumor of pancreas. Additionally, it is found in a subset of other tumors including lymphoblastic lymphoma, breast carcinoma and other malignancies.

CDX-2

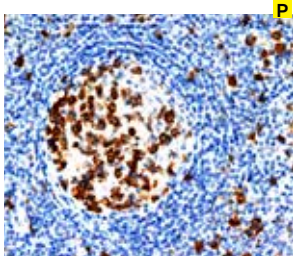
Intestine tissue stained with Anti-CDX2 using DAB chromogen

Clone:	CDX2-88
Isotype:	IgG 1 Kappa
Source:	Mouse
Immunogen:	A Balb/c mouse was immunized with a full-length CDX2 recombinant protein. Stable hybridomas were produced by fusion of spleen cells with P2/0 myeloma cell.
Specificity:	CDX2 protein
Localization:	Nucleus
Pre-treatment:	EZ-AR 2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM392-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM392-10M**
Xmatrx®	**AX392-YCD, AX392-50D**
NanoVip™®	**AX392-4M**
Concentrated:	**MU392-UC, MU392-5UC**
Recommended Positive Control:	**FG-392M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-392M (Xmatrx & NanoVip™)**

CDX2, a member of the caudal-related homeobox family, is an intestine-specific transcription factor that regulates both proliferation and differentiation in intestinal epithelial cells. It plays an important role in triggering cells towards the phenotype of differentiated villus enterocytes as well as in the maintenance of the phenotype.

CDK1



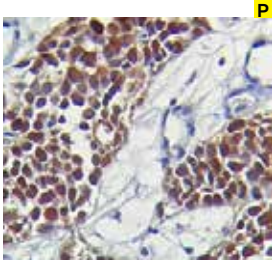
Tonsil tissue stained with Anti-CDK1 using DAB chromogen

Clone:	A17.1.1
Isotype:	IgG
Source:	Mouse
Immunogen:	C-Terminal 2/3 of Xenopus CDC2 expressed in E. coli
Specificity:	Human, mouse, rat, chicken CDK1
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM905-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AM905-10ME**
Xmatrx®	**AX905-YCDE, AX905-50DE**
NanoVip™®	**AX905-4ME**
Concentrated:	**MU905-UCE, MU905-5UCE**
Recommended Positive Control:	**FG-905ME (Manual & i6000)**
Recommended Microchamber Slide:	**FB-905ME(Xmatrx & NanoVip™)**

CDK1 (Cyclin-dependent kinase 1), also known as CDC2 (cell division cycle protein 2 homolog) is a highly conserved protein that functions as a serine/threonine kinase, and is a key player in cell cycle regulation and the only CDK that can initiate the onset of mitosis. At the onset of mitosis activation of CDK1 occurs rapidly.

CDK4



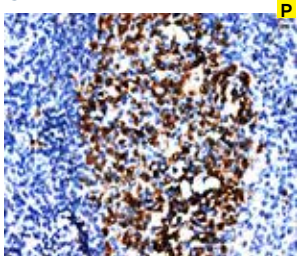
Bladder tissue stained with Anti-CDK4 using DAB Chromogen

Clone:	DCS-35
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human CDK4
Specificity:	CDK4
Localization:	Nuc & Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB80-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB80-10M**
Xmatrx®	**AXB80-YCD, AXB80-50D**
NanoVip™®	**AXB80-4M**
Concentrated:	**MUB80-UC, MUB80-5UC**
Recommended Positive Control:	**FG-B80M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B80M (Xmatrx & NanoVip™)**

CDK4 (cyclin-dependent kinase 4) is a 34 kDa member of the serine/threonine protein kinase family. CDK4 is phosphorylated, forms a complex with cyclin D1, 2 or 3, and phosphorylates pRb/retinoblastoma protein leading to inactivation of pRb and cells initiate DNA synthesis. Mutations in CDK4 gene are found to be associated with tumorigenesis of a variety of carcinomas. CDK4 expression is seen in a variety of normal cells and tissues as well as in carcinoma cells. CDK4 is overexpressed in human tumors like malignant melanoma, glioma, sarcoma and carcinomas of the breast, urothelial, colon, lung, ovary and oral cavity.

CDK2



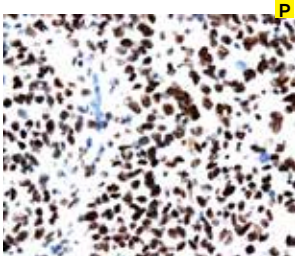
Tonsil tissue stained with Anti-CDK2 using DAB chromogen

Clone:	SP80
Isotype:	IgG
Source:	Rabbit
Immunogen:	Synthetic peptide corresponding to C-terminus of human CDK2 protein
Specificity:	Human CDK2
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN906-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AN906-10ME**
Xmatrx®	**AN906-YCDE, AN906-50DE**
NanoVip™®	**AN906-4ME**
Concentrated:	**NU906-UCE, NU906-5UCE**
Recommended Positive Control:	**FG-906NE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-906NE (Xmatrx & NanoVip™)**

CDK2 (Cyclin-dependent kinase 2), also known as cell division protein kinase 2, is a serine/threonine protein kinases that participate in cell cycle regulation and is especially critical during the G1 to S phase transition. CDK2 phosphorylates a large number of proteins involved in cell cycle progression (e.g. p27KIP1 and RB), DNA replication (e.g., replication factors A and C), histone synthesis (e.g., NPAT), centrosome duplication (e.g., nucleophosmin), among other processes. CDK2 is known to phosphorylate Akt on Ser477 and Thr479 promoting its activation at a specific stage during cell cycle progression (5).

CDK9



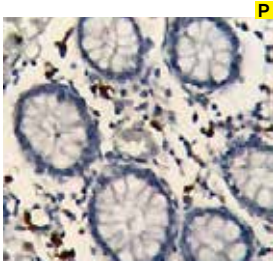
Cervical carcinoma stained with Anti-CDK9 using DAB chromogen

Clone:	K.513.1
Isotype:	IgG
Source:	Rabbit
Immunogen:	Synthetic peptide corresponding to residues near the carboxy terminus of human CDK9
Specificity:	Human, mouse, rat, bovine, dog CDK9
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN908-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AN908-10ME**
Xmatrx®	**AN908-YCDE, AN908-50DE**
NanoVip™®	**AN908-4ME**
Concentrated:	**NU908-UCE, NU908-5UCE**
Recommended Positive Control:	**FG-908NE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-908NE (Xmatrx & NanoVip™)**

CDK9 (Cyclin-dependent kinase 9), is a serine/threonine kinase that forms the catalytic core of the positive transcription elongation factor b (P-TEFb). This enzyme is critical for stimulating transcription elongation of most protein coding genes, including key developmental and stimulus-responsive genes, by RNA polymerase II (RNAPII). CDK9 is not a typical Cdc-2 like kinase and it does not act in cell cycle regulation processes; rather, it acts in differentiation processes. Targeting CDK9 with small molecule inhibitors represents a viable strategy for the treatment of several diseases, indicated especially by the deregulation of CDK9 activity in carcinomas, cardiac hypertrophy, HIV infections and pathological inflammation.

CEACAM1



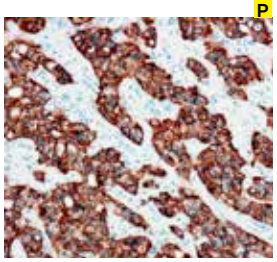
Colon Adenocarcinoma tissue stained with Anti-CEACAM1 using DAB Chromogen

Clone:	E-1
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Human CEACAM1
Specificity:	CEACAM1
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC87-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC87-10M**
Xmatrx®	**AXC87-YCD, AXC87-50D**
NanoVip™®	**AXC87-4M**
Concentrated:	**MUC87-UC, MUC87-5UC**
Recommended Positive Control:	**FG-C87M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C87M (Xmatrx & NanoVip™)**

CEACAM1 plays an important role in multiple cellular activities, including angiogenesis, differentiation and arrangement of tissue three-dimensional structure, apoptosis, tumor suppression, metastasis, as well as the modulation of innate and adaptive immune responses. It is expressed by neutrophils, bile duct epithelium, activated NK cells, colonic columnar epithelium and endothelium, lymphoid, and myeloid cells

c-erbB-2 (HER-2/neu)



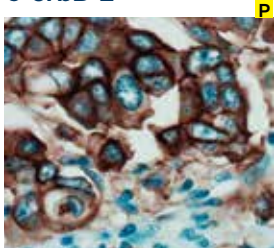
Breast carcinoma tissue stained with Anti-Her2 using DAB Chromogen

Clone:	CB11
Isotype:	IgG1
Source:	Mouse
Immunogen:	Synthetic peptide corresponding to a site on the internal domain of the c-erbB-2 Protein (HER-2/neu)
Localization:	Membrane and cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM134-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AM134-10ME**
Xmatrx®	**AX134-YCDE, AX134-50DE**
NanoVip™®	**AX134-4ME**
Concentrated:	**MU134-UCE, MU134-5UCE**
Recommended Positive Control:	**FG-134ME (Manual & i6000)**
Recommended Microchamber Slide:	**FB-134ME(Xmatrx & NanoVip™)**

The Her-2/neu (c-erb-B2) gene product is a 185 kD transmembrane glycoprotein associated with tyrosine kinase activity. The antibody CB11 is directed against the internal domain of this oncoprotein. Approximately 20-30% cases of breast carcinoma an amplification and/or overexpression of Her-2 in tumor cells.

c-erbB-2



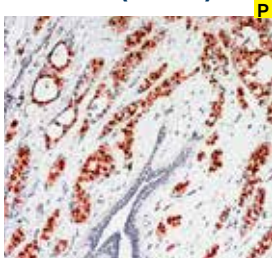
Breast carcinoma tissue stained with Anti-c-erbB-2 using DAB chromogen

Clone:	SP3
Isotype:	IgG
Source:	Rabbit
Immunogen:	A recombinant protein encoding extracellular domain of human c-erbB-2
Specificity:	Human c-erbB-2
Localization:	Membrane and cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN721-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AN721-10ME**
Xmatrx®	**AN721-YCDE, AN721-50DE**
NanoVip™®	**AN721-4M**
Concentrated:	**NU721-UCE, NU721-5UCE**
Recommended Positive Control:	**FG-721NE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-721NE (Xmatrx & NanoVip™)**

c-erbB-2 is a receptor tyrosine kinase of the c-erbB family. It is closely related in structure to the epidermal growth factor receptor. Amplification or over-expression of the erbB-2 gene occurs in approximately 15-30% of breast carcinomas. It is strongly associated with increased disease recurrence and a poor prognosis. Over-expression is also known to occur in ovarian, stomach, and aggressive forms of uterine carcinoma, such as uterine serous endometrial carcinoma. c-erbB-2 oncoprotein is detectable in a proportion of breast and other adenocarcinomas, as well as transitional cell carcinomas.

c-erbB-3 (HER-3)



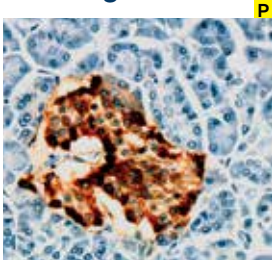
Breast carcinoma tissue stained with Anti-c-erbB-3 using DAB chromogen

Clone:	RTJ1/A2
Isotype:	IgM
Source:	Mouse
Immunogen:	Synthetic peptide from the cytoplasmic domain of the human c-erbB-3 protein
Specificity:	c-erbB-3 protein
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM319-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM319-10M**
Xmatrx®	**AX319-YCD, AX319-50D**
NanoVip™®	**AX319-4M**
Concentrated:	**MU319-UC, MU319-5UC**
Recommended Positive Control:	**FG-319M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-319M (Xmatrx & NanoVip™)**

The c-erbB-3 gene product is a 180 kD transmembrane glycoprotein showing tyrosine kinase activity. It belongs to a family of growth receptors that show structural similarity to Epidermal Growth Factor Receptor (EGFR) and the c-erbB-2 proteins. The c-erbB-3 protein is widely expressed in digestive, urinary and respiratory tracts, the circulatory systems, female and male reproductive system but not in hematopoetic system. C-erbB-3 protein has also been seen to be overexpressed in some tumors including those of the breast, stomach, pancreas, colon, and ovary. This antibody stains c-erbB-3 protein in membrane of positive cells.

Chromogranin A



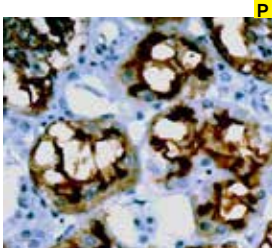
Pancreas tissue stained with Anti-Chromogranin using DAB chromogen

Clone:	LK2H10
Isotype:	IgG1 Kappa
Source:	Mouse
Immunogen:	Tissue from human pheochromocytoma
Specificity:	Secretory storage granules in endocrine cells
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM126-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM126-10M**
Xmatrx®	**AX126-YCD, AX126-50D**
NanoVip™®	**AX126-4M**
Concentrated:	**MU126-UC, MU126-5UC**
Recommended Positive Control:	**FG-126M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-126M (Xmatrx & NanoVip™)**

This antibody recognizes Chromogranin A (68 kD) and other related chromogranin polypeptides from human, monkey, and pig. Chromogranin is widely distributed and through immunohistochemistry, chromogranin has been demonstrated in several elements of the diffuse neuroendocrine system, including anterior pituitary, thyroid parafollicular C cells, parathyroid chief cells, pancreatic islet cells, intestinal enteroendocrine cells, and tumors derived from these cells.

Chromogranin A



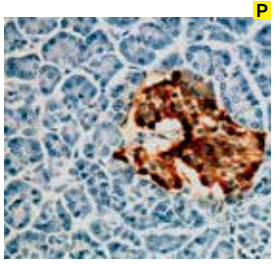
pancreas tissue stained with Anti-Chromogranin A using DAB Chromogen

Clone:	CGA/413+CHGA/777+ CHGA/798
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Recombinant human chromogranin A protein
Specificity:	Chromogranin A
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA51-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA51-10M**
Xmatrx®	**AXA51-YCD, AXA51-50D**
NanoVip™®	**AXA51-4M**
Concentrated:	**MUA51-UC, MUA51-5UC**
Recommended Positive Control:	**FG-A51M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A51M (Xmatrx & NanoVip™)**

Chromogranin A is a 49-kDa acidic glycoprotein that belongs to the granin family, a principal component of dense-core granules in neuroendocrine cells. Its expression generally correlates with the number of dense-core granules in neuroendocrine cells. Chromogranin A and hormones are co-secreted from neuroendocrine cells during the secretory granule exocytotic process. Chromogranin A itself can also be degraded into a series of smaller biologically active peptides, such as pancreastatin, catestatin, and vasostatins I and II.

Chromogranin A



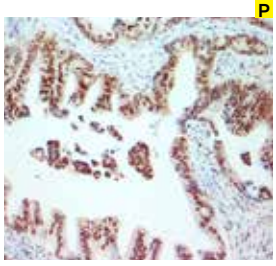
Pancreatic islet tissue stained with Anti-Chromogranin A using DAB chromogen

Clone:	PHE-5
Isotype:	IgG
Source:	Mouse
Specificity:	Chromogranin A
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM356-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM356-10M**
Xmatrx®	**AX356-YCD, AX356-50D**
NanoVip™®	**AX356-4M**
Concentrated:	**MU356-UC, MU356-5UC**
Recommended Positive Control:	**FG-356M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-356M (Xmatrx & NanoVip™)**

This antibody recognizes Chromogranin A (68 kD) and other related chromogranin polypeptides from human, monkey, and pig. Through immunohistochemistry, chromogranin has been demonstrated in several elements of the diffuse neuroendocrine system, including anterior pituitary, thyroid parafollicular C cells, parathyroid chief cells, pancreatic islet cells, intestinal enteroendocrine cells, and tumors derived from these cells. Chromogranin immunoreactivity was also seen in thymus, spleen, lymph nodes, fetal liver, neurons, the inner segment of rods and cones, the submandibular gland, and the central nervous system. Overexpression of ErbB2 is detected in almost 40% of human breast carcinomas.

c-Jun



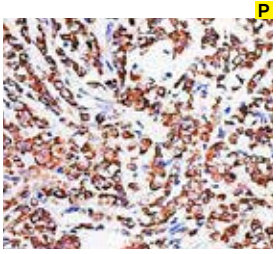
Stomach carcinoma tissue stained with Anti-c-Jun using DAB chromogen

Clone:	4H9
Isotype:	IgG1
Source:	Mouse
Immunogen:	Recombinant fragment, human c-Jun expressed in E. Coli
Specificity:	c-Jun
Localization:	Nuclear
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM958-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM958-10M**
Xmatrx®	**AX958-YCD, AX958-50D**
NanoVip™®	**AX958-4M**
Concentrated:	**MU958-UC, MU958-5UC**
Recommended Positive Control:	**FG-958M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-958M (Xmatrx & NanoVip™)**

c-Jun is a component of the transcription factor Activator Protein 1 (AP-1) that binds and activates transcription at TPA-responsive element (TRE/AP-1) elements and appears to be a major downstream target of the Stress-activated protein kinases/Jun amino-terminal kinases (SAPK/JNK) signaling pathway. The transcriptional activity of c-Jun is regulated by phosphorylation due to extracellular signals including growth factors, transforming oncoproteins, and UV irradiation that stimulates phosphorylation at Ser63/73 and activates c-Jun dependent transcription. c-Jun antibodies are used to study the signal-transducing transcription factor of the AP1 family.

Cytokeratin 18



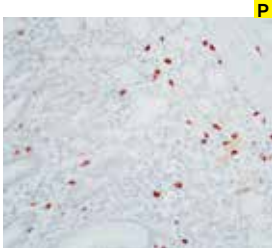
Breast carcinoma tissue stained with Anti-CK18 IHC using DAB chromogen

Clone:	IHC018
Isotype:	IgG1
Source:	Mouse
Immunogen:	PMC-42 Human Breast Carcinoma Cells
Specificity:	Cytokeratin 18
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA19-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA19-10M**
Xmatrx®	**AXA19-YCD, AXA19-50D**
NanoVip™®	**AXA19-4M**
Concentrated:	**MUA19-UC, MUA19-5UC**
Recommended Positive Control:	**FG-A19M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A19M (Xmatrx & NanoVip™)**

Cytokeratins 8 (52 kD) and 18 (45 kD) comprise a cytokeratin pair as markers for simple epithelia. The monoclonal antibodies specific for Cytokeratin 18 stain all carcinomas derived from simple epithelia but do not stain well-differentiated squamous cell carcinoma. It is useful to use monoclonal antibodies to Cytokeratins 8 and 18 in combination with other monoclonal cytokeratin antibodies when studying cytokeratin expression patterns.

c-Kit/CD117



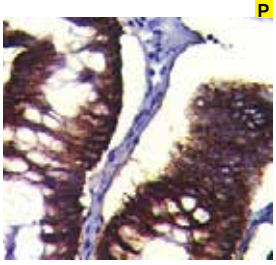
Stomach tissue stained with Anti-c-Kit/CD117 using DAB chromogen

Clone:	EP10
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues in the C-terminus of of human c-Kit/CD117 protein
Specificity:	Human c-Kit/CD117
Localization:	Membrane and cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN818-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AN818-10ME**
Xmatrx®	**AN818-YCDE, AN818-50DE**
NanoVip™®	**AN818-4ME**
Concentrated:	**NU818-UCE, NU818-5UCE**
Recommended Positive Control:	**FG-818NE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-818NE (Xmatrx & NanoVip™)**

CD117 is a proto-oncogene, meaning that overexpression or mutations of this protein can lead to carcinoma. Seminomas, a subtype of testicular germ cell tumors. Member of the Tyrosine Kinase Receptor (TKRs) and highly homologous to receptor PDF and CSF-1. Activation of c-Kit tyrosine kinase by SCF (Stem Cell factor) leads to autophosphorylation and association of c-Kit with substrate PI3K. CD117 is a marker for Mast cell and gastrointerstinal stroma tumor.

Claudin-4



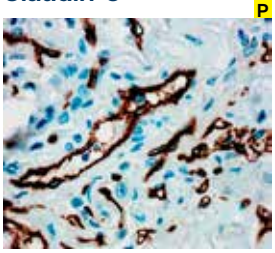
Appendix tissue stained with Anti-Claudin-4 using DAB Chromogen

Clone:	A-12
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human Claudin-4
Specificity:	Claudin-4
Localization:	Mem & Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB08-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB08-10M**
Xmatrx®	**AXB08-YCD, AXB08-50D**
NanoVip™®	**AXB08-4M**
Concentrated:	**MUB08-UC, MUB08-5UC**
Recommended Positive Control:	**FG-B08M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B08M (Xmatrx & NanoVip™)**

Claudin-4 (Clostridium perfringens enterotoxin receptor) belongs to the 20-member family of claudins, transmembrane cellular adhesion proteins localized at epithelial and endothelial tight junctions. It is a 209 amino acid molecule with four transmembrane segments. These are essential components of tight junction charge-specific channels that regulate paracellular ion flux. It plays a role in internal organ epithelial tissue development and function during pre- and postnatal life.Phosphorylation of Claudin-4 regulates paracellular epithelial permeability.

Claudin-5



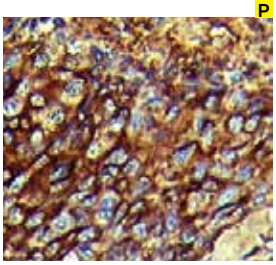
Lung squamous carcinoma tissue stained with Anti-Claudin 5 using DAB chromogen

Clone:	EP224
Isotype:	IgG1
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues of human Claudin-5 protein
Specificity:	Claudin-5 protein
Localization:	Cell junction/Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN718-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN718-10M**
Xmatrx®	**AY718-YCD, AY718-50D**
NanoVip™®	**AY718-4M**
Concentrated:	**NU718-UC, NU718-5UC**
Recommended Positive Control:	**FG-718N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-718N (Xmatrx & NanoVip™)**

Claudin-5 is a member of the claudin family. Mutations in Claudin-5 have been found in patients with velocardiofacial syndrome. Claudin-5 labels endothelial cells. It has been used as a marker for endothelial lesions. Claudin-5 is also found in bronchial and lung epithelial cells. In tumors, Claudin-5 expression has been found in lung adenocarcinoma and squamous carcinoma. In serous ovarian adenocarcinoma, increased Claudin-5 expression is associated with aggressive behavior.

Clusterin



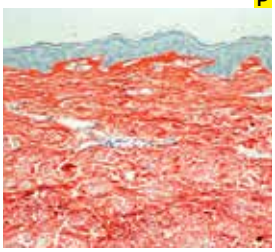
Tonsil tissue stained with Anti-Clusterin using DAB Chromogen

Clone:	A-9
Isotype:	IgG2a
Source:	Mouse
Immunogen:	Human Clusterin
Specificity:	Clusterin
Localization:	Mem & Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB33-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB33-10M**
Xmatrx®	**AXB33-YCD, AXB33-50D**
NanoVip™®	**AXB33-4M**
Concentrated:	**MUB33-UC, MUB33-5UC**
Recommended Positive Control:	**FG-B33M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B33M (Xmatrx & NanoVip™)**

Clusterin, also known as Apolipoprotein J, Sulfated Glycoprotein 2 (SGP-2), TRPM-2, and SP-40,40, is a secreted multifunctional glycoprotein that is expressed ubiquitously in most tissues. The main function of clusterin is to interact and stabilize stress-induced proteins to prevent them from precipitation. Additionally, it participates in the control of cell proliferation, apoptosis, and carcinogenesis. The subcellular distribution of multiple isoforms leads to the diversity of clusterin functions.

Collagen III



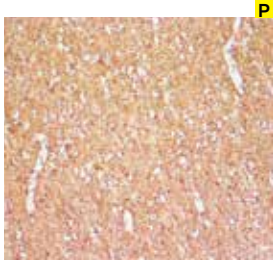
Skin tissue stained with Anti-collagen III using AEC chromogen

Clone:	HWD1.1
Isotype:	IgG
Source:	Mouse
Immunogen:	Human collagen purified by High Performance Liquid Chromatography
Specificity:	Collagen type III
Localization:	ECM
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM167-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM167-10M**
Xmatrx®	**AX167-YCD, AX167-50D**
NanoVip™®	**AX167-4M**
Concentrated:	**MU167-UC, MU167-5UC**
Recommended Positive Control:	**FG-167M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-167M (Xmatrx & NanoVip™)**

Collagen type III is a marker for interstitial connective tissue of the extracellular matrix. Collagen type III is diffusely present throughout the interstitial connective tissues making it a better marker than cellular fibronectin, which is more closely associated with basement membrane, and presence in extracellular matrix is minimal. In highly specialized vascular beds of spleen and glomeruli where basement membrane is prominent, little collagen type III is detected, whereas fibronectin is abundant. This antibody does not react with collagens type I, II, IV, V, VI, or VII. This antibody stains positive for Collagen type III in interstitial connective tissue but not on basement membranes.

CNPase (Myelin)



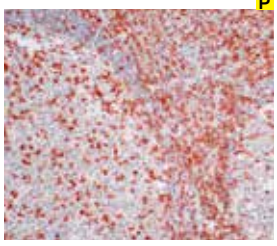
Breast carcinoma tissue stained with Anti-CNPase using DAB chromogen

Clone:	SMI 91
Isotype:	IgG1
Source:	Mouse
Immunogen:	Purified, human myelin CNPase
Specificity:	CNPase
Localization:	Cell membrane
Pre-treatment:	EZ-AR1
Manual/i6000:	HK521-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AM959-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AM959-10ME**
Xmatrx®	**AX959-YCDE, AX959-50DE**
NanoVip™®	**AX959-4ME**
Concentrated:	**MU959-UCE, MU959-5UCE**
Recommended Positive Control:	**FG-959ME (Manual & i6000)**
Recommended Microchamber Slide:	**FB-959ME(Xmatrx & NanoVip™)**

The high CNPase expression is seen in myelin-producing cells, including oligodendrocytes and Schwann cells. CNPase participate in RNA metabolism in the myelinating cell, CNP is the third most abundant protein in central nervous system myelin; accounts for roughly 4% of the total myelin protein in the central nervous system (CNS). CNPase binds to tubulin heterodimers and plays a role in tubulin polymerization and oligodendrocyte process outgrowth. The enzyme isolated from the mammalian brain is primarily a mixed dimer of approximately 94 kDa.

ZAP-70



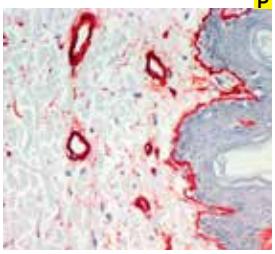
Tonsil tissue stained with Anti-Human ZAP-70 using DAB chromogen

Clone:	EP52
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human ZAP-70 protein
Specificity:	Human ZAP-70
Localization:	Cytoplasm/nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN852-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN852-10M**
Xmatrx®	**AY852-YCD, AY852-50D**
NanoVip™®	**AY852-4M**
Concentrated:	**NU852-UC, NU852-5UC**
Recommended Positive Control:	**FG-852N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-852N (Xmatrx & NanoVip™)**

ZAP-70, a Syk-family protein tyrosine kinase, plays a critical role in mediating T cell signal transduction in response to T cell antigen receptor (TCR) activation. It is primarily expressed in T cells and natural killer (NK) cells. It also labels mast cells, basophils and pro/pre B cells but not mature B cells. ZAP-70 antibody is useful in identification of the subtype of chronic lymphocytic leukemia (CLL). ZAP-70 is positive in CLL with mutation of the immunoglobulin heavy-chain variable region (IgVH) genes, but negative in CLL without IgVH mutation. ZAP-70 expression is associated with disease progression in CLL.

Collagen IV

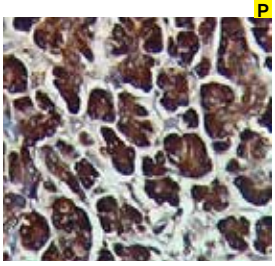


Clone:	COL-94
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human Collagen IV
Specificity:	Type IV collagen
Localization:	Basal Laminae
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM379-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM379-10M**
Xmatrx®	**AX379-YCD, AX379-50D**
NanoVip™®	**AX379-4M**
Concentrated:	**MU379-UC, MU379-5UC**
Recommended Positive Control:	**FG-379M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-379M (Xmatrx & NanoVip™)**

This antibody reacts with Collagen IV and does not cross-react with other collagen types. It does not cross-react with human vitronectin, fibronectin or chondroitin sulfate A, B, or C. The positive or negative demonstration of basal lamina using immunostaining helps to distinguish some types of benign lesions from malignant tumors such as tubular carcinoma of the breast. Schwannomas and leiomyomas and their well differentiated malignant counterparts usually immunoreact in a characteristic fashion to the monoclonal antibody for type IV Collagen.

CPA1



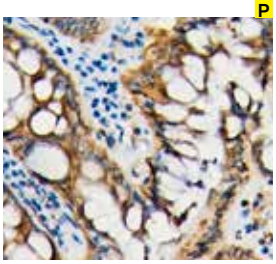
Pancreas tissue stained with Anti-CPA1 using DAB Chromogen

Clone:	CPA1/2712
Isotype:	IgG2c
Source:	Mouse
Immunogen:	Human CPA1
Specificity:	CPA1
Localization:	Cytoplasm/Secreted
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC555-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC555-10M**
Xmatrx®	**AXC555-YCD, AXC555-50D**
NanoVip™®	**AXC555-4M**
Concentrated:	**MUC555-UC, MUC555-5UC**
Recommended Positive Control:	**FG-C555M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C555M (Xmatrx & NanoVip™)**

Carboxypeptidase A1/ CPA1 is a 419 amino acid zinc metalloenzymes belongs to the peptidase M14 family. It is a secreted monomeric protein involved in zymogen inhibition and functioning to block enzyme activation pathways. It is highly expressed in pancreatic tissue and functions as a pancreatic exopeptidase. CPA1 plays a key role in protein digestion and degradation by using zinc as a cofactor to catalyze the release of C-terminal amino acids from a variety of proteins. Abnormal levels of CPA1are observed in pancreatic carcinoma, suggesting a possible role in either tumor progression or tumor suppression events.

COX2



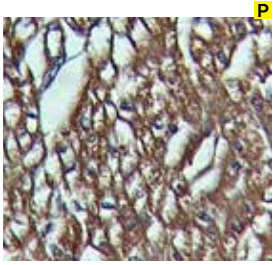
Colon tissue stained with Anti-COX2 using DAB Chromogen

Clone:	COX2/3320R
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human COX2
Specificity:	COX2
Localization:	Cytoplasm/Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ANA33-5M**
Ready-to-Use (Automated):	
***i*6000™**	**ANA33-10M**
Xmatrx®	**AYA33-YCD, AYA33-50D**
NanoVip™®	**AYA33-4M**
Concentrated:	**NUA33-UC, NUA33-5UC**
Recommended Positive Control:	**FG-A33N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A33N (Xmatrx & NanoVip™)**

The enzyme cyclooxygenase (COX), also known as prostaglandin H synthase or prostaglandin endoperoxide synthase, consists of two isoforms, COX-1 and COX-2. Both isoforms are associated with inner membranous compartments and represent key enzymes in the conversion of arachidonic acid to prostaglandin. COX-1 is constitutively expressed in most cell types and is involved in the homeostasis of various physiological functions, while COX-2 is considered to be a mitogen-inducible form, associated with biologic events such as injury, inflammation, and proliferation. COX-2 plays an important role in carcinogenesis of various human carcinomas, including colorectal carcinoma and cervical carcinoma. COX-2 has been studied as a key rate-limiting enzyme for prostanoid biosynthesis.

CTLA-4



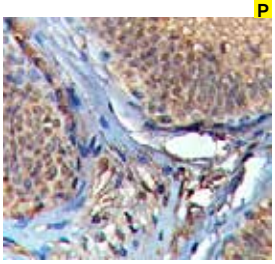
Heart tissue stained with Anti-CTLA-4 using DAB Chromogen

Clone:	F-8
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human CTLA-4
Specificity:	CTLA-4
Localization:	Mem & Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC20-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC20-10M**
Xmatrx®	**AXC20-YCD, AXC20-50D**
NanoVip™®	**AXC20-4M**
Concentrated:	**MUC20-UC, MUC20-5UC**
Recommended Positive Control:	**FG-C20M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C20M (Xmatrx & NanoVip™)**

CTLA-4 (Cytotoxic T-Lymphocyte Antigen 4) is composed of a single Ig V like extracellular domain, a transmembrane domain and an intracellular domain and belongs to immunoglobulin (Ig) gene superfamily. It is structurally homologous to CD28 and is expressed on CD4+ cytotoxic T cells. CTLA-4 is a strong inhibitor of T-cell activation and is functions in T-cell apoptosis. CTLA-4 is also found intracellularly in regulatory T-cells and is important for their function.

Cyclin B1



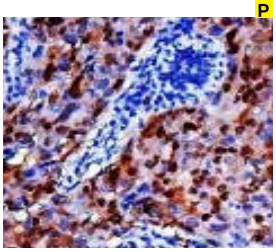
Testis tissue stained with Anti-Cyclin B1 using DAB Chromogen

Clone:	CCNB1/1098
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human Cyclin B1
Specificity:	Cyclin B1
Localization:	Nuc & Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC32-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC32-10M**
Xmatrx®	**AXC32-YCD, AXC32-50D**
NanoVip™®	**AXC32-4M**
Concentrated:	**MUC32-UC, MUC32-5UC**
Recommended Positive Control:	**FG-C32M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C32M (Xmatrx & NanoVip™)**

Cyclin B1, also known as CCNB1 and G2/mitotic-specific cyclin-B belongs to cyclin AB subfamily, cyclin family of proteins. It is a regulatory protein involved in mitosis and expressed primarily in cytoplasm in all eukaryotes. Cyclin B1 is essential for the control of the cell cycle at the G2/M transition. Elevated expression has been observed in various types of human carcinomas including breast, lung, colon, prostate and head and neck carcinomas. In addition, CCNB1 also serves as a prognostic biomarker for estrogen-receptor-positive (ER+) breast carcinoma.

Cyclin D1



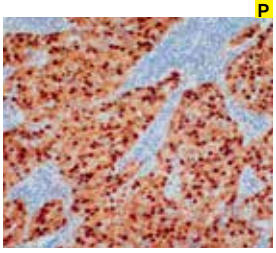
Breast carcinoma tissue stained with Anti-Cyclin D1 using DAB chromogen

Clone:	E3P5S
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptidecorresponding to residues surrounding Ala284 of human cyclin D1 protein.
Specificity:	Cyclin D1
Localization:	Nucleus
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ANA20-5M**
Ready-to-Use (Automated):	
***i*6000™**	**ANA20-10M**
Xmatrx®	**AYA20-YCD, AYA20-50D**
NanoVip™®	**AYA20-4M**
Concentrated:	**NUA20-UC, NUA20-5UC**
Recommended Positive Control:	**FG-A20N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A20N (Xmatrx & NanoVip™)**

Cyclin D1 belongs to the Cyclin D family. Cyclin D1 is required for the cell cycle G1/S transition. Cyclin D1 forms a serine/threonine kinase holoenzyme complex with and functions as a regulatory subunit of CDK4 or CDK6. Amplification of overexpression of cyclin D1 plays a pivotal role in the development of various human tumors including parathyroid adenoma, breast tumor, colon tumor, lymphoma, melanoma and prostate tumor. Cyclin D1 also associates with and regulates the activity of transcription factors, coactivators and corepressors that govern histone acetylation and chromatin remodeling proteins.

Cyclin D1



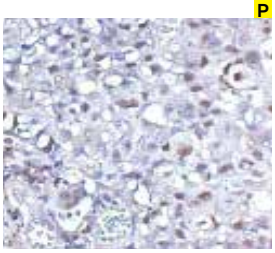
Breast carcinoma stained with Anti-Cyclin D1 using DAB chromogen

Clone:	EP12
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues near the C-terminus of human Cyclin D1 protein.
Specificity:	Human Cyclin D1
Localization:	Nuclear
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN815-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN815-10M**
Xmatrx®	**AY815-YCD, AY815-50D**
NanoVip™®	**AY815-4M**
Concentrated:	**NU815-UC, NU815-5UC**
Recommended Positive Control:	**FG-815N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-815N (Xmatrx & NanoVip™)**

Cyclin D1 belongs to the Cyclin D family. Cyclin D1 is required for the cell cycle G1/S transition. Amplificaiton or overexpression of cyclin D1 plays a pivotal role in the development of various human carcinomas including breast carcinoma, colon carcinoma, melanoma, prostate carcinoma and lymphoma. It is useful to differentiate mantle cell lymphoma from small cleaved cell lymphoma. Rabbit monoclonal antibodies to cyclin D1 showed the highest sensitivity to detect this antigen in formalin fixed paraffin embedded tissue as compared to several other clones.

Cyclin D3



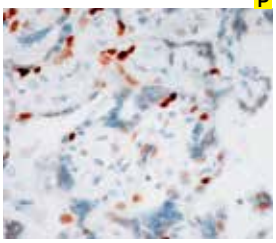
Human lung SCC tissue stained with Anti-Cyclin D3 using DAB chromogen

Clone:	DCS22
Isotype:	IgG2a
Source:	Mouse
Immunogen:	Recombinant human cyclin D3 corresponding to residues 241-260
Specificity:	Cyclin D3
Localization:	Nucleus
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA16-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA16-10M**
Xmatrx®	**AXA16-YCD, AXA16-50D**
NanoVip™®	**AXA16-4M**
Concentrated:	**MUA16-UC, MUA16-5UC**
Recommended Positive Control:	**FG-A16M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A16M (Xmatrx & NanoVip™)**

Cyclin D3 is part of the highly conserved Cyclin family. They are characterized by a dramatic periodicity in abundance throughout the cell cycle. Cyclins are regulators of Cyclin dependent Kinases (CDKs). Together, Cyclins with differential expressions and patterns, regulate mitotic events. Cyclin D3 functions as a regulatory subunit for CDK4 or CDK6, whose activity is required for cell cycle procession. Over expression of Cyclin D3 has been shown to correlate with early carcinoma onset and tumor progression.

Cyclin E1



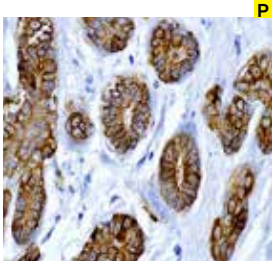
Planceta stissue tained with Anti-CyclinE1 using DAB chromogen

Clone:	EP126
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human CyclinE1 protein
Specificity:	Human CyclinE1
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN854-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN854-10M**
Xmatrx®	**AY854-YCD, AY854-50D**
NanoVip™®	**AY854-4M**
Concentrated:	**NU854-UC, NU854-5UC**
Recommended Positive Control:	**FG-854N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-854N (Xmatrx & NanoVip™)**

Cyclin E1 is a member of the cyclin E family that can associate with and activate cyclin-dependent kinase Cdk2. Expression of cyclin E1 is essential for the control of the cell cycle at the late G1 and early S phase. Ubiquination by the Cul-3 pathway and Fbw7 regulates cyclin E1 levels and is critically important in normal cells. In normal cells, cyclinE1 protein expression is tightly controlled through a combination of transcriptional and proteolytic regulatory processes. However, in many types of human tumors, cyclin E1 expression is frequently dysregulated, including overexpression, non-periodic expression relative to cell division, and generation of low molecular weight (LMW) derivatives.

Cytokeratin



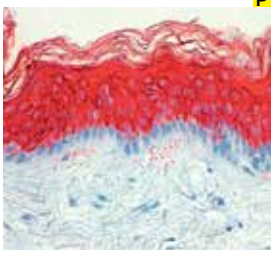
Breast carcinoma stained with Anti-Cytokeratin using DAB Chromogen

Clone:	CAM 5.2
Isotype:	IgG2a/k
Source:	Mouse
Immunogen:	Human Cytokeratin
Specificity:	Cytokeratin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB50-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB50-10M**
Xmatrx®	**AXB50-YCD, AXB50-50D**
NanoVip™®	**AXB50-4M**
Concentrated:	**MUB50-UC, MUB50-5UC**
Recommended Positive Control:	**FG-B50M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B50M (Xmatrx & NanoVip™)**

Cytokeratins are polypeptide chains that constituent major part of epithelial cell cytoskeleton. Cytokeratin (CAM 5.2) expression is seen in majority of epithelial tumors, including lung, liver, Breast Carcinoma, Gastro-Intestinal tract, breast, genitourinary system, female reproductive organs and some endocrine organs. It might not react with some squamous cell carcinomas. This antibody can be successfully used as a clinically reliable marker for neoplasms of epithelial origin and for distinguishing carcinomas from malignant tumors of nonepithelial origin such as lymphomas, melanomas, and sarcomas.

Cytokeratin 10



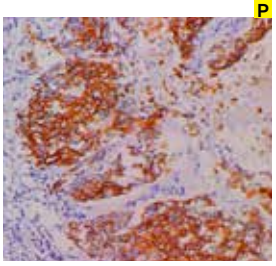
Skin tissue stained with Anti-Cytokeratin 10 using DAB chromogen

Clone:	DEK-10
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human epidermal keratin isolated by high salt extraction
Specificity:	Cytokeratin 10
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM201-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM201-10M**
Xmatrx®	**AX201-YCD, AX201-50D**
NanoVip™®	**AX201-4M**
Concentrated:	**MU201-UC, MU201-5UC**
Recommended Positive Control:	**FG-201M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-201M (Xmatrx & NanoVip™)**

Cytokeratins 1 and 10 are expressed only in suprabasal layers, and their expression increases with epidermal maturation. In terminally differentiated keratinocytes of the stratum corneum, Cytokeratins 1 and 10 are regarded as markers for orthokeratinization. Keratinizing areas expressing Cytokeratin 10 have been demonstrated in various well differentiated squamous cell carcinomas derived from epidermis as well as from various internal sites of stratified epithelia. This antibody stains cytoplasm in epithelial cells of the stratum corneum.

Cytokeratin 13



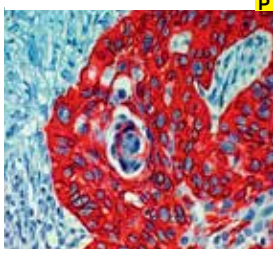
Breast carcinoma stained with Anti-Cytokeratin 13 antibody using FAST RED chromogen

Clone:	KRT13/2213
Isotype:	IgG
Source:	Mouse
Immunogen:	Human Cytokeratin 13
Specificity:	Cytokeratin 13
Localization:	Membrane
Pre-treatment:	EZ-AR1
Manual/i6000:	HK521-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AM989-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM989-10M**
Xmatrx®	**AX989-YCD, AX989-50D**
NanoVip™®	**AX989-4M**
Concentrated:	**MU989-UC, MU989-5UC**
Recommended Positive Control:	**FG-989M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-989M (Xmatrx & NanoVip™)**

Cytokeratin 13 is a part of the keratin gene family, more specifically a type 1 keratin, as non-keratinized squamous epithelial marker. Type 1 keratins, compared to type 2 keratins, tend to be smaller and more acidic. These keratins constitute the type intermediate filaments of the intracytoplasmic cytoskeleton that are responsible for the structural integrity of mammalian epithelial cells. Cytokeratin 13 has been found to play a directive role in prostate carcinoma metastasis. The levels of Cytokeratin 13 were able to predict bone metastasis and overall survival rate of the patient.

Cytokeratin 14

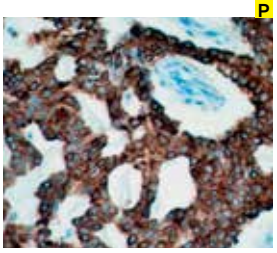


Squamous cell carcinoma tissue stained with Anti-Cytokeratin 14 using AEC chromogen

Clone:	LL002
Isotype:	IgG1 Kappa
Source:	Mouse
Immunogen:	Thyroglobulin conjugated synthetic peptide representing the C-terminal (last 15 residues) of human cytokeratin 14
Specificity:	Cytokeratin 14
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522 -XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM146-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM146-10M**
Xmatrx®	**AX146-YCD, AX146-50D**
NanoVip™®	**AX146-4M**
Concentrated:	**MU146-UC, MU146-5UC**
Recommended Positive Control:	**FG-146M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-146M (Xmatrx & NanoVip™)**

Cytokeratin 14 (molecular weight 50 kD), an acidic (Type I) cytokeratin protein, is one of the cytokeratin pairs (50/ 58 kD) that distinguishes stratified epithelial cell types from simple epithelial types. Cytokeratin 14 is homogeneously expressed in all cells of the keratinizing squamous epithelium and is confined to the basal and parabasal cells in the nonkeratinizing squamous epithelium of the normal adult urinary tract.



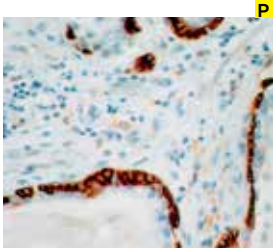
Squamous carcinoma tissue stained with Anti-Cytokeratin 15 using DAB chromogen

Clone:	EP14
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human Cytokeratin 15 protein
Specificity:	Human Cytokeratin 15
Localization:	-
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN855-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN855-10M**
Xmatrx®	**AY855-YCD, AY855-50D**
NanoVip™®	**AY855-4M**
Concentrated:	**NU855-UC, NU855-5UC**
Recommended Positive Control:	**FG-855N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-855N (Xmatrx & NanoVip™)**

Cytokeratin 15 (CK15) is involved in the development of stratified epithelia from one-layered polar epithelia and continues to be expressed in several adult epithelial tissues. It labels the basal keratinocytes of stratified tissues, including the fetal epidermis and fetal nail. Although CK15 in normal hair follicles was virtually absent from hair bulbs, it was expressed by a subset of keratinocytes in the outer root sheath. In human conjunctival epithelium, strong expression of CK15 was observed in basal cells, whereas Cytokeratin 19 was expressed in both basal and suprabasal layers. CK15 may be used to differentiate primary from metastatic skin carcinoma. It may be a useful stem cell marker for hair follicle and breast epithelium.

Cytokeratin 14



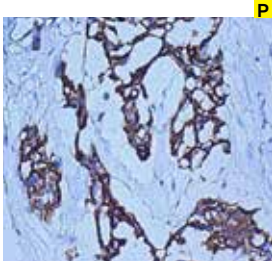
Prostate tissue stained with Anti-Cytokeratin 14 using DAB chromogen

Clone:	EP61
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues near the C-terminus of human Cytokeratin 14 protein.
Specificity:	Human Cytokeratin 14
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN831-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN831-10M**
Xmatrx®	**AY831-YCD, AY831-50D**
NanoVip™®	**AY831-4M**
Concentrated:	**NU831-UC, NU831-5UC**
Recommended Positive Control:	**FG-831N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-831N (Xmatrx & NanoVip™)**

Keratins are cytoplasmic intermediate filament proteins expressed by epithelial cells. The mitotically active basal layers of most stratified squamous epithelia express 10% to 30% of their total protein as keratin. Cytokeratin 14 (CK14) is a 50-kDa keratin expressed in abundance in stratified epithelial cells, epidermal cells, basal cells, mesothelial cells, and myoepithelial cells in various tissues including breast and prostate. CK14 is helpful in the identification of breast carcinoma with basal phenotype.

Cytokeratin 16



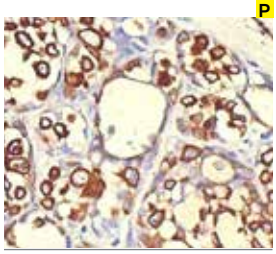
Skin carcinoma tissue stained with Anti-Cytokeratin 16 using DAB chromogen

Clone:	KRT16/2043R
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human Cytokeratin 16
Specificity:	Cytokeratin 16
Localization:	Membrane
Pre-treatment:	EZ-AR1
Manual/i6000:	HK521-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AN933-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN933-10M**
Xmatrx®	**AY933-YCD, AY933-50D**
NanoVip™®	**AY933-4M**
Concentrated:	**NU933-UC, NU933-5UC**
Recommended Positive Control:	**FG-933N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-933N (Xmatrx & NanoVip™)**

The KRT16 protein is a member of the keratin (type I) family. The keratins are intermediate filament proteins responsible for the structural integrity of epithelial cells and are subdivided into cytokeratins and hairkeratins. Epidermis-specific type I keratin that plays a key role in skin, acts as a regulator of innate immunity in response to skin barrier breach, required for some inflammatory checkpoint for the skin barrier maintenance. This keratin has been coexpressed with keratin 14 in a number of epithelial tissues, including esophagus, tongue, and hair follicles.

Cytokeratin 18



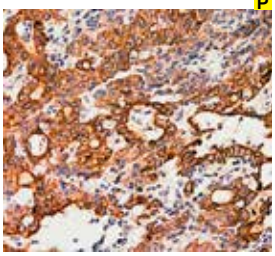
Breast carcinoma tissue stained with Anti-CK18 using AEC chromogen

Clone:	DC-10
Isotype:	IgG1
Source:	Mouse
Immunogen:	A cytoskeletal preparation of HeLa cells
Specificity:	Cytokeratin 18
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM981-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM981-10M**
Xmatrx®	**AX981-YCD, AX981-50D**
NanoVip™®	**AX981-4M**
Concentrated:	**MU981-UC, MU981-5UC**
Recommended Positive Control:	**FG-981M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-981M (Xmatrx & NanoVip™)**

Cytokeratins 8 (52 kD) and 18 (45 kD) comprise a cytokeratin pair as markers for simple epithelia. The monoclonal antibodies specific for cytokeratin 18 stain all carcinomas derived from simple epithelia but do not stain well-differentiated squamous cell carcinoma. It is useful to use monoclonal antibodies to Cytokeratins 8 and 18 in combination with other anti-cytokeratin monoclonal antibodies when studying cytokeratin expression patterns. This antibody stains Cytokeratin 18 in cytoplasm of epithelial cells.

Cytokeratin 19



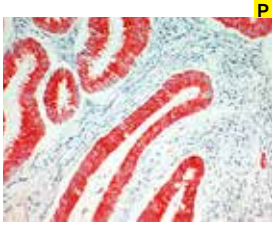
Colon carcinoma tissue stained with Anti-Cytokeratin 19 using DAB chromogen

Clone:	RCK108
Isotype:	IgG1 Kappa
Source:	Mouse
Immunogen:	Total cell extract from human bladder carcinoma cell line
Specificity:	Cytokeratin 19
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM246-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM246-10M**
Xmatrx®	**AX246-YCD, AX246-50D**
NanoVip™®	**AX246-4M**
Concentrated:	**MU246-UC, MU246-5UC**
Recommended Positive Control:	**FG-246M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-246M (Xmatrx & NanoVip™)**

Cytokeratin 19 (molecular mass 40 kD) is a marker of simple epithelia. Cytokeratin 19 has been found in mesothelial and mesothelioma cells, ovarian cysts, cystadenomas, and ovarian carcinomas, in adenocarcinomas of the lung and in tumor cells of pulmonary metastases, in the ductal cells of normal pancreas and in pancreatic carcinomas. It has been shown to be present in the basal layer of non-keratinizing stratified squamous epithelia such as the oral cavity and the ectocervix.

Cytokeratin 18



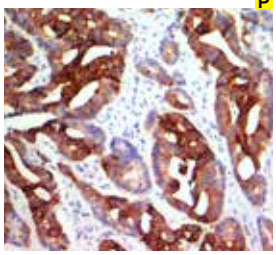
Breast carcinoma tissue stained with Anti-Cytokeratin 18 using FAST RED chromogen

Clone:	Breast Ca
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human Cytokeratin 18
Specificity:	Cytokeratin 16
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM143-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM143-10M**
Xmatrx®	**AX143-YCD, AX143-50D**
NanoVip™®	**AX143-4M**
Concentrated:	**MU143-UC, MU143-5UC**
Recommended Positive Control:	**FG-143M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-143M (Xmatrx & NanoVip™)**

Cytokeratins 8 (52 kD) and 18 (45 kD) comprise a cytokeratin pair as markers for simple epithelia. The monoclonal antibodies specific for Cytokeratin 18 stain all carcinomas derived from simple epithelia but do not stain well-differentiated squamous cell carcinoma. It is useful to use monoclonal antibodies to Cytokeratins 8 and 18 in combination with other monoclonal cytokeratin antibodies when studying cytokeratin expression patterns.

Cytokeratin 20



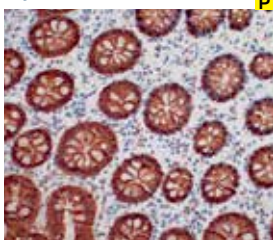
Colon carcinoma tissue stained with Anti-Cytokeratin 20 stained using DAB chromogen

Clone:	IT-Ks20.8
Isotype:	IgG 2a
Source:	Mouse
Immunogen:	Elecrophoretically purified cytokeratin 20 from human intestinal mucosa
Specificity:	Cytokeratin 20
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM315-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM315-10M**
Xmatrx®	**AX315-YCD, AX315-50D**
NanoVip™®	**AX315-4M**
Concentrated:	**MU315-UC, MU315-5UC**
Recommended Positive Control:	**FG-315M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-315M (Xmatrx & NanoVip™)**

Cytokeratin 20 (46kD) is relatively less acidic than other type I keratins. This antibody reacts with certain types of carcinomas such as adeno carcinomas of the colon, transitional cell carcinomas of the bladder and Merkel cell tumors of the skin. It does not stain breast, lung and endometrial adenocarcinomas. The differential staining pattern of this antibody makes it very useful for tumor evaluation when used in conjunction with cytokeratin 7 staining.

Cytokeratin 20



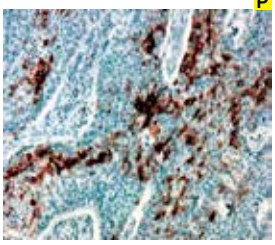
Colon carcinoma tissue stained with Anti-Cytokeratin 20 using DAB chromogen

Clone:	EP23
Isotype:	IgG
Source:	Rabbit
Immunogen:	Residues near the C-term of human Cytokeratin 20 protein.
Specificity:	Human Cytokeratin 20
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN849-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN849-10M**
Xmatrx®	**AY849-YCD, AY849-50D**
NanoVip™®	**AY849-4M**
Concentrated:	**NU849-UC, NU849-5UC**
Recommended Positive Control:	**FG-849N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-849N (Xmatrx & NanoVip™)**

Intermediate-sized filament (IF) protein designated cytokeratin 20 (CK20) is a major cellular protein of mature enterocytes and goblet cells commonly found in mucosal epithelium of the mammalian gastrointestinal tract. Results strongly suggest that transcriptional regulation of keratin genes in the intestinal epithelium occurs at the level of both immature and terminally differentiated epithelial cells, and is tightly regulated during both fetal development and crypt-to-villus differentiation of the intestinal epithelium. CK20 has recently been reported to be useful to distinguish between primary and metastatic lung adenocarcinoma.

Cytokeratin 4



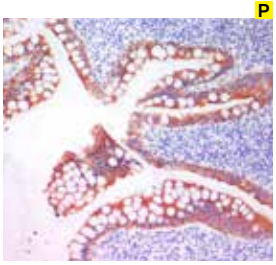
Esophagus tissue stained with Anti-CK4 using DAB chromogen

Clone:	EP4
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues on the C-terminus of human CK4 protein
Specificity:	CK4
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN717-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN717-10M**
Xmatrx®	**AY717-YCD, AY717-50D**
NanoVip™®	**AY717-4M**
Concentrated:	**NU717-UC, NU717-5UC**
Recommended Positive Control:	**FG-717N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-717N (Xmatrx & NanoVip™)**

Cytokeratin 4 (CK4) is a 59 kDa intermediate filament protein associated with cytokeratin 13. It is expressed in suprabasal cells of non-keratinized stratified squamous epithelium. A mutation in the CK4 gene causes white sponge nevus. A decreased expression of CK4 is associated with head and neck squamous carcinoma. It is helpful in differentiation of squamous cell carcinoma of esophagus origin from thyroid origin.

Cytokeratin 20



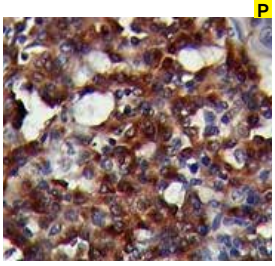
Appendix tissue stained with Anti-Cytokeratin-20 using DAB chromogen

Clone:	KRT20/1992
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Recombinant human KRT20 protein fragment
Specificity:	CK20
Localization:	Cell membrane
Pre-treatment:	EZ-AR1 Elegance
Manual/i6000:	HK546-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AM946-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM946-10M**
Xmatrx®	**AX946-YCD, AX946-50D**
NanoVip™®	**AX946-4M**
Concentrated:	**MU946-UC, MU946-5UC**
Recommended Positive Control:	**FG-946M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-946M (Xmatrx & NanoVip™)**

This monoclonal antibody recognizes an intermediate filament protein of 46 kDa, identified as cytokeratin 20 (KRT20, CK20). CK20 is abundantly expressed in goblet cells and enterocytes of the gastrointestinal tract. It plays a significant role in maintaining keratin filament organization in intestinal epithelia. It is a useful marker of pancreatic and colorectal carcinoma and has been detected in adenocarcinomas of the colon, stomach, and biliary tract. Diseases associated with CK20 include Merkel cell carcinoma and glandular cystitis. Breast carcinomas are generally non-reactive.

VISTA



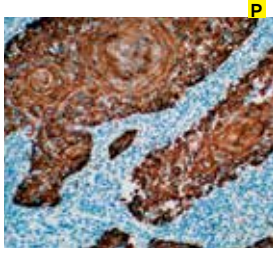
Squamous lung carcinoma tissue stained with Anti-VISTA using DAB Chromogen

Clone:	VISTA/3007
Isotype:	IgG2b, kappa
Source:	Mouse
Immunogen:	Human VISTA
Specificity:	VISTA
Localization:	Mem & Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC22-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC22-10M**
Xmatrx®	**AXC22-YCD, AXC22-50D**
NanoVip™®	**AXC22-4M**
Concentrated:	**MUC22-UC, MUC22-5UC**
Recommended Positive Control:	**FG-C22M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C22M (Xmatrx & NanoVip™)**

V-domain Ig suppressor of T cell activation (VISTA) is an inhibitory immune checkpoint protein mostly seen on tumor cells. VISTA in tumor cells suppresses T cell proliferation and cytokine production in vitro, and also decreased the tumor-infiltrating CD8+ T cells in vivo. It is primarily expressed in myeloid cells and also seen in CD4+, CD8+, and FoxP3+ T-cells. VISTA is highly expressed in human ovarian and an endometrial carcinoma is due to the methylation status of VISTA promoter.

Cytokeratin 5



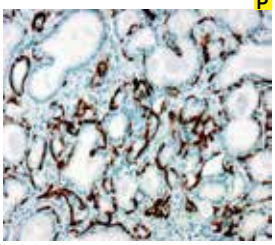
MESOTHELIOMA tissue stained with Anti-CK-5 using DAB chromogen

Clone:	EP24
Isotype:	IgG
Source:	Rabbit
Immunogen:	Residues near the C-term of human CK-5 protein.
Specificity:	Human CK-5
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN847-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN847-10M**
Xmatrx®	**AY847-YCD, AY847-50D**
NanoVip™®	**AY847-4M**
Concentrated:	**NU847-UC, NU847-5UC**
Recommended Positive Control:	**FG-847N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-847N (Xmatrx & NanoVip™)**

Keratins are a family of structurally related proteins that form the intermediate filament cytoskeleton in epithelial cells. The 58-kD keratin CK-5 is highly similar to other type II keratins and less similar to type I keratins and other intermediate filament proteins. The 58-kD keratin is regulated by retinoids in several tissues and is one of four keratins abundantly expressed in epidermal keratinocytes, where it may be important in maintaining structural integrity of the integument (1). Keratin 5 (CK-5) mRNA and protein are shown to be expressed in normal mammary epithelial cells in culture and are absent from tumor-derived cell lines.

Cytokeratin 5 + Cytokeratin 14



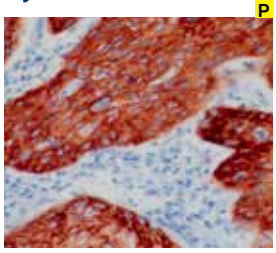
Prostate tissue stained with Anti-CK5&14 using DAB chromogen

Clone:	EP24 + EP61
Isotype:	IgG
Source:	Rabbit
Immunogen:	CK5: Synthetic peptide corresponding to residues near the C-terminus of human CK-5 protein CK14: A synthetic peptide corresponding to esidues near the C-terminus of human CK14 protein
Specificity:	Cytokeratin 5 & 14
Localization:	Cytoplasm
Pre-treatment:	EZ-AR1/EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN730-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AN730-10ME**
Xmatrx®	**AN730-YCDE, AN730-50DE**
NanoVip™®	**AN730-4ME**
Concentrated:	**NU730-UCE, NU730-5UCE**
Recommended Positive Control:	**FG-730NE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-730NE (Xmatrx & NanoVip™)**

CK5 labels myoepithelial cells of breast and prostate basal cells. CK5 and calretinin have been useful in mesothelioma and differentiation of adenocarcinomas, especially when facing metastatic tumors of unknown origin. Cytokeratin 14 (CK14) is a 50-kDa keratin expressed in abundance in stratified epithelial, epidermal, basal, mesothelial, and myoepithelial cells in various tissues including breast and prostate. Cytokeratin 5/14-positive breast carcinomas are true basal phenotype confined to BRCA1 tumors.

Cytokeratin 5



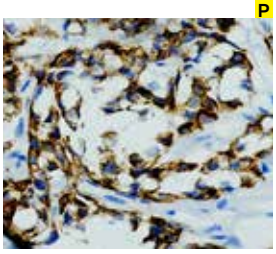
Cervical carcinoma tissue stained with Anti-Cytokeratin 5 using DAB chromogen

Clone:	EP42
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues on the C-terminus of human Cytokeratin 5 protein
Specificity:	Human Cytokeratin 5
Localization:	Cytoplasm/nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN853-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN853-10M**
Xmatrx®	**AY853-YCD, AY853-50D**
NanoVip™®	**AY853-4M**
Concentrated:	**NU853-UC, NU853-5UC**
Recommended Positive Control:	**FG-853N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-853N (Xmatrx & NanoVip™)**

The mitotically active basal layers of most stratified squamous epithelia express 10% to 30% of their total protein as keratin. The two keratins specifically expressed in these cells are the type II keratin CK5 and its corresponding partner, type I keratin CK14, both of which are essential for the formation of 8-nm filaments. CK5 and calretinin have been useful in different studies as immunohistochemical markers suggestive of mesothelioma, and their expression is analyzed for the histological differential diagnosis with adenocarcinomas, especially when confronting with metastatic tumors of unknown origin.

Cytokeratin 6



Cervical carcinoma tissue stained with Anti-Cytokeratin 6 using DAB chromogen

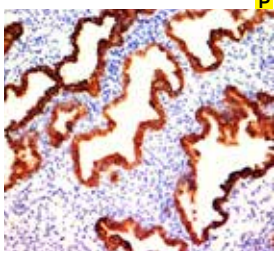
Clone:	EP67
Isotype:	IgG
Source:	Rabbit
Immunogen:	Residues of human Cytokeratin 6 protein
Specificity:	Human Cytokeratin 6
Localization:	Cytoplasm/membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN845-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN845-10M**
Xmatrx®	**AY845-YCD, AY845-50D**
NanoVip™®	**AY845-4M**
Concentrated:	**NU845-UC, NU845-5UC**
Recommended Positive Control:	**FG-845N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-845N (Xmatrx & NanoVip™)**

The human type II Cytokeratin 6 (CK6; 56 kDa) is well known for its strong induction in stratified epithelia that feature an enhanced cell proliferation rate or abnormal differentiation during wound healing, in several diseases (e.g. psoriasis, actinic keratosis) and in carcinoma. CK6 is expressed on stratified epithelia including oral mucosa, esophagus, basal layer of epidermis, the outer root sheath of hair follicles, and in glandular epithelia. CK6 is a marker of hyperproliferative and activated keratinocytes found in psoriasis. CK6 paired with CK5 is useful to differentiate mesothelioma (positive) from lung carcinoma (negative) or metastatic carcinoma (negative) in the pleura. CK5/6 has also been used to distinguish usual ductal hyperplasia of the breast (strong staining) from solid papillary DCIS (negative).

Cytokeratin 7

P



Breast carcinoma tissue stained with Anti-Cytokeratin7 using DAB chromogen

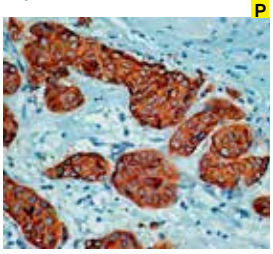
Clone:	OV-TL12/30
Isotype:	IgG1Kappa
Source:	Mouse
Immunogen:	Ovarian carcinoma cells
Specificity:	Cytokeratin 7
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM255-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM255-10M**
Xmatrx®	**AX255-YCD, AX255-50D**
NanoVip™®	**AX255-4M**
Concentrated:	**MU255-UC, MU255-5UC**
Recommended Positive Control:	**FG-255M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-255M (Xmatrx & NanoVip™)**

Cytokeratin 7 is a 54 kD marker of simple epithelium. Antibody to Cytokeratin 7 strongly stains all cell layers of the urinary bladder transitional epithelium. However, Cytokeratin 7 is absent from gastrointestinal epithelium, hepatocytes, proximal and distal tubules of the kidney, and myoepithelium, and also cannot be detected in the stratified epithelia of the skin, tongue, esophagus, or cervix. Cytokeratin 7 recognizes specific subtypes of adenocarcinomas and can be used to differentiate between Cytokeratin 7-positive tissues such as ovarian carcinomas and transitional cell carcinomas and Cytokeratin 7-negative tissues such as carcinomas of the gastrointestinal tract and prostate carcinomas.

Cytokeratin 7 & 8

P



Breast carcinoma tissue stained with Anti-Cytokeratin 7&8 using DAB chromogen

Clone:	OV-TL12/30 & C51
Isotype:	IgG1
Source:	Mouse
Immunogen:	Ovarian carcinoma cells & MCF-7 cells
Specificity:	Cytokeratin 7 & 8
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM587-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM587-10M**
Xmatrx®	**AX587-YCD, AX587-50D**
NanoVip™®	**AX587-4M**
Concentrated:	**MU587-UC, MU587-5UC**
Recommended Positive Control:	**FG-587M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-587M (Xmatrx & NanoVip™)**

Cytokeratins 7 and 8 are two closely related type II cytokeratins characteristic of simple epithelia. Cytokeratin 7 is less widespread than cytokeratin 8 and is expressed in sebaceous and sweat glands and some cells of the inner hair root sheath. Cytokeratin 8 is primarily found in the non squamous epithelia. Cytokeratin 7 is usually present in adenocarcinomas of lung, breast, endometrioid tumors, transitional cell carcinoma of the bladder. The combination of cytokeratin 7 and 8 is a useful marker for differentiating adenocarcinomas and ductal carcinomas from squamous cell carcinomas.

Cytokeratin 7

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Endometrium tissue stained with Anti-Cytokeratin-7 using DAB chromogen

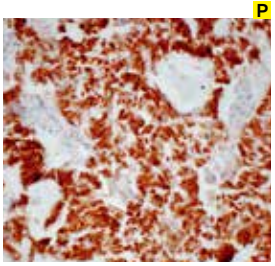
Clone:	KRT7/760
Isotype:	IgG1
Source:	Mouse
Immunogen:	Recombinant full-length human KRT7 protein
Specificity:	CK7
Localization:	Cell membrane
Pre-treatment:	EZ-AR1 Elegance
Manual/i6000:	HK546-XAK/ HK521-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AM944-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM944-10M**
Xmatrx®	**AX944-YCD, AX944-50D**
NanoVip™®	**AX944-4M**
Concentrated:	**MU944-UC, MU944-5UC**
Recommended Positive Control:	**FG-944M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-944M (Xmatrx & NanoVip™)**

Anti-Cytokeratin 7 (CK7) antibody recognizes an intermediate filament protein (IFP) of 55 kDa. This monoclonal antibody (mAb) is highly specific to cytokeratin 7 and shows no cross-reaction with other IFPs. Cytokeratin 7 is a basic cytokeratin and belongs to type II cytokeratin. Type II cytokeratin is specifically expressed in the simple epithelia lining the cavities of the internal organs and in the gland ducts and blood vessels and is found in most glandular and transitional epithelia; but not in the stratified squamous epithelia. Cytokeratin 7 is expressed in the epithelial cells of the ovary, lung, and breast but not of the colon, prostate, or gastrointestinal tract. Anti-Cytokeratin 7 mAb is highly useful in distinguishing ovarian carcinomas (CK 7+) from colon carcinomas (CK 7-).

Cytokeratin 8

P



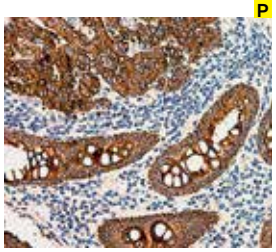
Breast Carcinoma tissue stained with Anti-Cytokeratin8 using DAB chromogen

Clone:	C51
Isotype:	IgG1
Source:	Mouse
Immunogen:	A cytoskeletal preparation of MCF-7 cells
Specificity:	Cytokeratin 8
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM142-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM142-10M**
Xmatrx®	**AX142-YCD, AX142-50D**
NanoVip™®	**AX142-4M**
Concentrated:	**MU142-UC, MU142-5UC**
Recommended Positive Control:	**FG-142M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-142M (Xmatrx & NanoVip™)**

Cytokeratin 8 (52 kD) and 18 (45 kD) comprise a Cytokeratin pair as markers for simple epithelia. In most situations, Cytokeratin 8 exists in tissues together with Cytokeratin 18, but there are exceptions among some normal and abnormal epithelial cells. Cytokeratin 8 is a type II (or basic) keratin that is expressed in epithelial and carcinoma cells. Clone C-51 is designed for the specific localization of Cytokeratin 8 and does not cross-react with human cytokeratin numbers 7, 17, 18, or 19. This antibody stains Cytokeratin 8 in cytoplasm of positive epithelial cells. studies have demonstrated the involvement of cytokeratin 8 in protection against apoptosis, stress, or injury, as well as regulation of the cell cycle.cytokeratin 8 has been found to localize to the plasma membrane in some tumor cells.

Cytokeratins 8 & 18



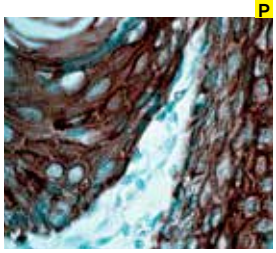
Colon carcinoma stained with Anti-Cytokeratin 8 &18 using DAB chromogen

Clone:	5D3
Isotype:	IgG1
Source:	Mouse
Immunogen:	Cytokeratins from human breast carcinoma cell line MCF-7
Specificity:	Cytokeratins 8 and 18
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM131-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM131-10M**
Xmatrx®	**AX131-YCD, AX131-50D**
NanoVip™®	**AX131-4M**
Concentrated:	**MU131-UC, MU131-5UC**
Recommended Positive Control:	**FG-131M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-131M (Xmatrx & NanoVip™)**

Carcinomas may be classified precisely by the analysis of their keratin patterns. Clone 5D3 recognizes an epitope restricted to a few members of the cytokeratin subclasses, specifically Cytokeratins 8 and 18. This antibody reacts with all simple epithelia including glandular epithelium and ciliated pseudostratified columnar epithelium localized in thyroid, female breast, gastrointestinal and respiratory tract. 5D3 may be a useful marker for demonstrating columnar cell differentiation when studying biphasic differentiation of basal cells of respiratory or intermediate epithelium.

Cytokeratin Cocktail, Broad Spectrum



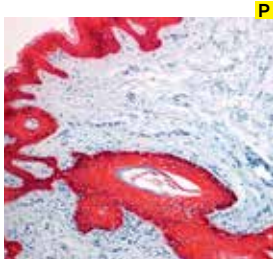
Normal stomach mucosa tissue stained with Anti-Cytokeratin cocktail using DAB chromogen

Clone:	34βE12/C51/AE1
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human epidermal keratin and cytoskeletal preparation of MCF-7 cells
Specificity:	Cytokeratin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual:	HK522 -XAK
Xmatrx®:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM273-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM273-10M**
Xmatrx®	**AX273-YCD, AX273-50D**
NanoVip™®	**AX273-4M**
Concentrated:	**MU273-UC, MU273-5UC**
Recommended Positive Control:	**FG-273M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-273M (Xmatrx & NanoVip™)**

Human cytokeratins, which form a major part of the cytoskeleton of epithelial cells, belong to a family of water soluble proteins ranging in size from 40 to 68 kD. Various subsets of cytokeratin proteins occur in any given epithelium, depending on the epithelium cell type, stage of differentiation and embryonic development, cellular growth environment, and type of malignancy. Immunohistochemical analysis of a large variety of neoplasms has established that cytokeratin protein immunohistochemistry is an important aid for epithelial tumor classification.

Cytokeratin Cocktail



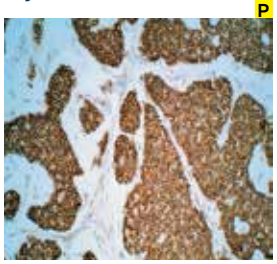
Skin tissue stained with Anti-Cytokeratin cocktail AE1 & AE3 using AEC chromogen

Clone:	AE1 and AE3
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human epidermal keratin
Specificity:	Cytokeratin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000™:	EK522-5K
Xmatrx®:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM071-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM071-10M**
Xmatrx®	**AX071-YCD, AX071-50D**
NanoVip™®	**AX071-4M**
Concentrated:	**MU071-UC, MU071-5UC**
Recommended Positive Control:	**FG-071M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-071M (Xmatrx & NanoVip™)**

Human cytokeratins (40 kD to 68 kD) are a family of water-insoluble proteins that form a major part of the cytoskeleton of epithelial cells. Immunohistochemical analysis of a large variety of neoplasms has established keratin protein immunohistochemistry as an important aid for classification of epithelial neoplasms. Monoclonal antibodies AE1 and AE3 recognize the acidic and basic subfamilies of cytokeratin, respectively. Thus, the combination of these two antibodies can be used to detect almost all human epithelia. These antibodies show no cross-reactivities with other cytoskeletal proteins. This monoclonal antibody cocktail can be used to detect almost all human epithelia. Membrane and cytoplasmic staining is seen in epithelial cells.

Cytokeratin Cocktail, Broad Spectrum



Breast carcinoma tissue stained with Anti-CK88 using DAB chromogen

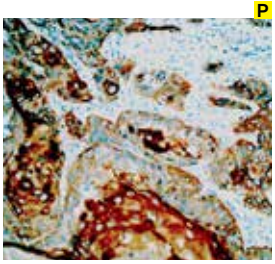
Clone:	LL002+DEK-10+RCK108+OV-TL12/30+C11
Isotype:	IgG Cocktail
Source:	Mouse
Immunogen:	Human epidermal keratin
Specificity:	Cytokeratin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM372-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM372-10M**
Xmatrx®	**AX372-YCD, AX372-50D**
NanoVip™®	**AX372-4M**
Concentrated:	**MU372-UC, MU372-5UC**
Recommended Positive Control:	**FG-372M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-372M (Xmatrx & NanoVip™)**

Human cytokeratins, a family of water-insoluble polypeptides, form the major part of the cytoskeleton in all normal and neoplastic epithelial cells. CK88 is a broad spectrum antibody cocktail that reacts with a variety of normal and neoplastic epithelia. It recognizes most epithelium including simple, basal, suprabasal layers, cornea, cornifying stratified epithelium of skin, transitional epithelium of urinary tract, and squamous epithelium. Analysis of intracellular keratin by immunoperoxidase technique is helpful in establishing the epithelial nature of primary or metastatic poorly differentiated neoplasms. This antibody stains cytokeratin in cytoplasm of normal and neoplastic epithelial cells.

Cytokeratin, High MW (Basic)

P



Squamous Cell carcinoma tissue stained with Anti-Cytokeratin using DAB chromogen

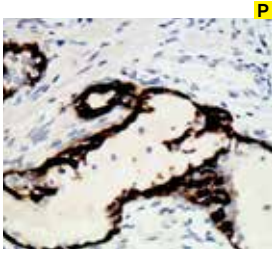
Clone:	AE3
Isotype:	IgG
Source:	Mouse
Immunogen:	Total keratin was isolated from human epidermal callus. After heating to 65° C for 10 minutes, the denatured keratins were used as the antigen
Specificity:	Cytokeratin high MW (basic)
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual:	HK522-XAK
Xmatrx	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM133-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM133-10M**
Xmatrx®	**AX133-YCD, AX133-50D**
NanoVip™®	**AX133-4M**
Concentrated:	**MU133-UC, MU133-5UC**
Recommended Positive Control:	**FG-133M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-133M (Xmatrx & NanoVip™)**

The cytokeratins are a family of water insoluble proteins (40-70 kD) found in almost all epithelial cell types. Monoclonal cytokeratin antibody AE3 recognizes all basic (Type II) keratins. Since each epithelium contains at least one acidic and one basic keratin, AE3 may be used as a broadly reactive antibody which stains positive for most epithelia and their neoplasms. AE3 has shown great sensitivity and broad specificity for keratins under various conditions of fixation and staining.

Cytokeratin, High MW

P



Prostatic basal cell tissue stained with Anti-Cytokeratin (HMW) using DAB chromogen

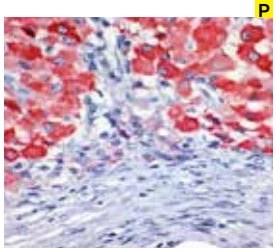
Clone:	34βE12
Isotype:	IgG1 Kappa
Source:	Mouse
Immunogen:	Human stratum corneum
Specificity:	High molecular weight cytokeratin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM291-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM291-10M**
Xmatrx®	**AX291-YCD, AX291-50D**
NanoVip™®	**AX291-4M**
Concentrated:	**MU291-UC, MU291-5UC**
Recommended Positive Control:	**FG-291M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-291M (Xmatrx & NanoVip™)**

Monoclonal antibody 34βE12 is specific for "high molecular weight" cytokeratins 1, 5, 10, 14, corresponding to molecular weights of 68, 58, 56.5, and 50 kD, respectively, which are characteristically found in complex epithelium. The antibody reacts with all squamous and ductal epithelium and stains carcinomas. It reacts with benign small-acinar lesions of the prostate. This antibody stains positive in cytoplasm of epithelial cells.

Cytokeratin PAN

P



Squamous tissue stained with Anti-Cytokeratin Pan using DAB chromogen

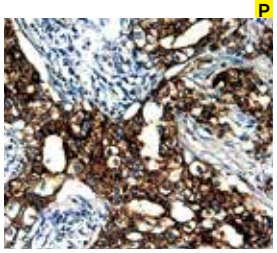
Clone:	AE-1/AE-3
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human epidermal keratin
Specificity:	Cytokeratin PAN
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA46-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA46-10M**
Xmatrx®	**AXA46-YCD, AXA46-50D**
NanoVip™®	**AXA46-4M**
Concentrated:	**MUA46-UC, MUA46-5UC**
Recommended Positive Control:	**FG-A46M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A46M (Xmatrx & NanoVip™)**

Keratins are useful markers in carcinoma research and tumor diagnosis as observed by many studies. It is a broad spectrum anti pan-cytokeratin antibody cocktail, which differentiates epithelial tumors from non-epithelial tumors e.g. squamous vs. adenocarcinoma of the lung, liver carcinoma, breast carcinoma, and esophageal carcinoma. It has been used to determine the source of various neoplasms and help to study the distribution of cytokeratin containing cells in epithelia during normal development and during the development of epithelial neoplasms.

Cytokeratin, Low MW

P



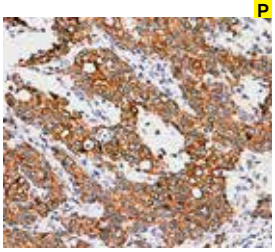
Breast carcinoma tissue stained with Anti-Cytokeratin using DAB chromogen

Clone:	AE1
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human epidermal keratin
Specificity:	40, 48, 50 and 56.5 kD keratins
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM075-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM075-10M**
Xmatrx®	**AX075-YCD, AX075-50D**
NanoVip™®	**AX075-4M**
Concentrated:	**MU075-UC, MU075-5UC**
Recommended Positive Control:	**FG-075M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-075M (Xmatrx & NanoVip™)**

The cytokeratins are a family of water insoluble proteins (40-70 kD) found in almost all epithelial cell types. Low molecular weight cytokeratin antibody AE1 has proven to be a widespread histological marker for the restricted staining of the epidermal basal layer of skin and almost all epithelially derived tumors. It can be used as a marker for cells of epithelial origin. This antibody recognizes most type I keratins and shows broad species specificity reacting with keratins of many species including human, rabbit, mouse, bovine, and chick. Staining is usually stronger in alcohol-fixed tissues than in formalin-fixed tissues.

Cytokeratin, Pan



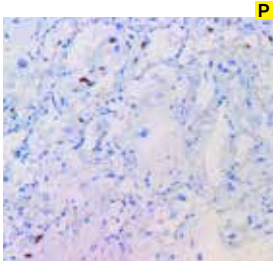
Adeno carcinoma tissue stained with Anti-Cytokeratin Pan using DAB chromogen

Clone:	Lu-5
Isotype:	IgG1
Source:	Mouse
Immunogen:	Cells from a lung carcinoma cell line
Specificity:	Cytokeratins
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM181-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM181-10M**
Xmatrx®	**AX181-YCD, AX181-50D**
NanoVip™®	**AX181-4M**
Concentrated:	**MU181-UC, MU181-5UC**
Recommended Positive Control:	**FG-181M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-181M (Xmatrx & NanoVip™)**

The Lu-5 antibody recognizes an epitope on the surface of cytokeratin filaments which is present in a wide range of cytokeratins, except in intermediate-size filament proteins. This epitope may be found in all human epithelia and carcinomas and is resistant to formalin-fixation. The Lu-5 antibody was determined a useful pan cytokeratin marker for the detection of both normal and malignant epithelial and mesothelial cells. The Lu-5 antibody stains surface of cytokeratin filaments in a wide variety of normal and tumor tissues.

Cytomegalovirus



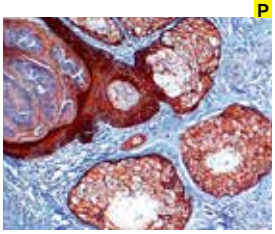
Lung tissue stained with Anti-Cytomegalovirus using DAB chromogen

Clone:	DDG9/CCH2
Isotype:	IgG2a; IgG1; kappa
Source:	Mouse
Immunogen:	Human Cytomegalovirus
Specificity:	Cytomegalovirus
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx: NanoVip™:	HX032-YCD HX046-08XN

Ready-to-Use (Manual):	**AM997-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM997-10M**
Xmatrx®	**AX997-YCD, AX997-50D**
NanoVip™®	**AX997-4M**
Concentrated:	**MU997-UC, MU997-5UC**
Recommended Positive Control:	**FG-997M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-997M (Xmatrx & NanoVip™)**

Cytomegalovirus (CMV) is a member of the family Herpesviridae, which includes Epstein-Barr virus, herpes simplex virus types 1 and 2, varicellazoster virus, and human herpes virus 6. CMV is the most common identified cause of congenital infection. Found in several body fluids including saliva, urine, breast milk, cervical secretions, blood, and semen, CMV can be transmitted in a variety of ways, such as blood transfusion and organ transplantation. The typical morphology of infected tissue includes enlarged cells (often to a diameter of 40 ?m) with intranuclear, and on occasion, cytoplasmic inclusions.

Cytokeratin, Pan



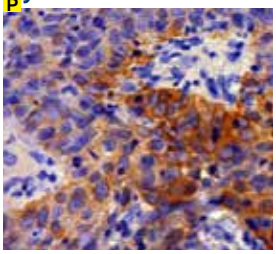
Breast carcinoma tissue stained with Anti-Cytokeratin Pan using DAB chromogen

Clone:	C11
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human Cytomegalovirus
Specificity:	Cytokeratin, Pan
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx: NanoVip™:	HX032-YCD HX046-08XN

Ready-to-Use (Manual):	**AM357-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM357-10M**
Xmatrx®	**AX357-YCD, AX357-50D**
NanoVip™®	**AX357-4M**
Concentrated:	**MU357-UC, MU357-5UC**
Recommended Positive Control:	**FG-357M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-357M (Xmatrx & NanoVip™)**

Human keratins are a family of water-insoluble proteins with molecular weights ranging from 40kD – 68kD. They form a part of the cytoskeleton of epithelial cells. This monoclonal cytokeratin antibody can be used to detect cytokeratins 4, 5, 6, 8, 10, 13, and 18 in simple or stratified epithelium in most vertebrates including human. It can be used as a marker for carcinoma as well as some special types of tumors which have an epithelial component or differentiation. Cytokeratin antibodies have been widely used as markers to differentiate epithelial tumors from non-epithelial tumors.

Cytokeratin 5 & 6



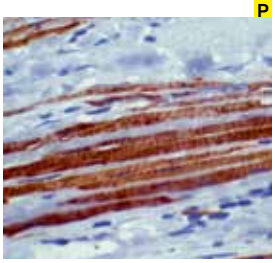
Cervical carcinoma tissue stained with Anti-Cytokeratin 5&6 using DAB chromogen

Clone:	EP24 & EP67
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues on the N terminus of human Cytokeratin 5&6
Specificity:	Human Cytokeratins 5 & 6
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN892-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN892-10M**
Xmatrx®	**AY892-YCD, AY892-50D**
NanoVip™®	**AY892-4M**
Concentrated:	**NU892-UC, NU892-5UC**
Recommended Positive Control:	**FG-892N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-892N (Xmatrx & NanoVip™)**

Cytokeratins are intermediate filament proteins expressed in cytoplasm of epithelial cells. The mitotically active basal layers of most stratified squamous epithelia express 10% to 30% of their total protein as keratin. The two keratins specifically type II keratin CK5 and type II CK6, which essentially form 8-nm filaments. CK5 is a useful immunohistochemical marker in different studies of mesothelioma, and the expression is key tool for the histological differential diagnosis with adenocarcinomas, especially when confronting with metastatic tumors of unknown origin.

Desmin



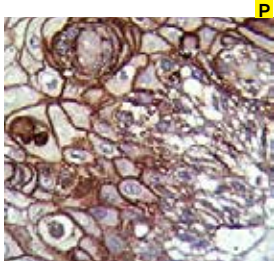
Skeletal muscle fibre tissue stained with Anti-Desmin using DAB chromogen

Clone:	D33
Isotype:	IgG1
Source:	Mouse
Immunogen:	Purified desmin from human leiomyoma
Specificity:	Desmin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM072-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM072-10M**
Xmatrx®	**AX072-YCD, AX072-50D**
NanoVip™®	**AX072-4M**
Concentrated:	**MU072-UC, MU072-5UC**
Recommended Positive Control:	**FG-072M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-072M (Xmatrx & NanoVip™)**

Desmin is a 56 kD intermediate filament expressed by cells of smooth, skeletal, and cardiac muscle. In myofibrils, desmin is localized in skeletal and cardiac muscle Z lines, in regions of cell-cell juncture, at the site of apposition of the Z line with the plasma membrane, and in cardiac intercalated disks. The specificity of desmin to muscle cells makes it a useful marker in identifying sarcomas derived from smooth and striated muscle cells such as leiomyosarcomas and rhabdomyosarcomas. This antibody does not cross-react detectably with GFAP, keratin, vimentin, or neurofilament. This antibody stains positive in muscle cells.

Desmoglein-3



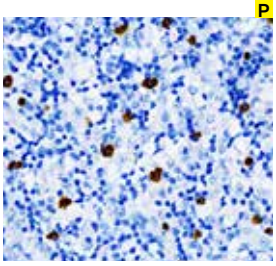
Lung tissue stained with Anti-Desmoglein-3 using DAB Chromogen

Clone:	DSG3/2839
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human Desmoglein-3
Specificity:	Desmoglein-3
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA77-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA77-10M**
Xmatrx®	**AXA77-YCD, AXA77-50D**
NanoVip™®	**AXA77-4M**
Concentrated:	**MUA77-UC, MUA77-5UC**
Recommended Positive Control:	**FG-A77M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A77M (Xmatrx & NanoVip™)**

Desmoglein 3 (Dsg3), also known as Cadherin family member 6(CDHF6), is a member of the desmosomal cadherin family and plays a critical role in cell-cell adhesion. It is a calcium-binding transmembrane glycoprotein component of desmosomes in vertebrate epithelial cells. DSGs/ desmocollin (DSCs) are anchored to the intracellular plaque proteins plakoglobin, plakophilins, and desmoplakin, the latter of which mediates connection to the intermediate filament cytoskeleton. Desmoglein 3 is predominately expressed in stratified squamous epithelia including epidermis, tongue, tonsil, esophagus and carcinomas.

Desmoglein 1



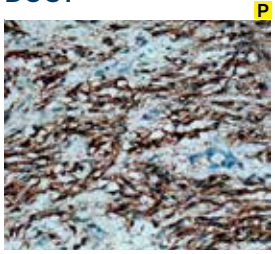
Hodgkins Lymphoma tissue stained with Anti-Desmoglein 1 using DAB Chromogen

Clone:	DSG1/1733
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human Desmoglein 1
Specificity:	Desmoglein 1
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC86-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC86-10M**
Xmatrx®	**AXC86-YCD, AXC86-50D**
NanoVip™®	**AXC86-4M**
Concentrated:	**MUC86-UC, MUC86-5UC**
Recommended Positive Control:	**FG-C86M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C86M (Xmatrx & NanoVip™)**

Desmoglein 1 is a 1049 amino acid calcium-binding type I transmembrane glycoprotein. Desmoglein-1 is important in establishing cell-cell adhesion and function of epithelial cells in the epidermis. Desmoglein 1 is identified as the autoantigen of the autoimmune skin blistering disease pemphigus vulgaris.

DOG1



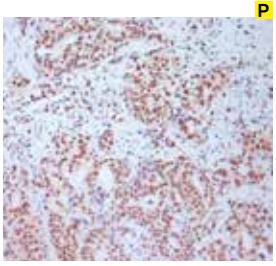
GIST tissue stained with Anti-DOG1 using DAB chromogen

Clone:	1.1
Isotype:	IgG
Source:	Mouse
Immunogen:	A synthetic peptide corresponding to residues in human MUCDOG1 .
Specificity:	DOG1
Localization:	Cytoplasm/Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM570-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM570-10M**
Xmatrx®	**AX570-YCD, AX570-50D**
NanoVip™®	**AX570-4M**
Concentrated:	**MU570-UC, MU570-5UC**
Recommended Positive Control:	**FG-570M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-570M (Xmatrx & NanoVip™)**

DOG1 is a cell surface protein selectively expressed in gastrointestinal stromal tumors (GIST). The DOG1 protein shows no homology at the DNA or amino acid level with KIT. DOG1 antibody labels the epithelium of the following organs: breast, prostate, salivary gland, liver, stomach, testis, pancreas, and gallbladder. DOG1 is a useful marker for GISTs, including PDGFRA mutants that fail to express KIT antigen

dsDNA



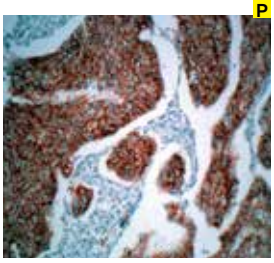
Prostate carcinoma tissue stained with Anti-dsDNA using DAB chromogen

Clone:	121-3
Isotype:	IgG3
Source:	Mouse
Immunogen:	Nuclei of Burkitt's cells
Specificity:	dsDNA
Localization:	Nuclear
Pre-treatment:	EZ-AR1
Manual/i6000:	HK521-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AM934-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM934-10M**
Xmatrx®	**AX934-YCD, AX934-50D**
NanoVip™®	**AX934-4M**
Concentrated:	**MU934-UC, MU934-5UC**
Recommended Positive Control:	**FG-934M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-934M (Xmatrx & NanoVip™)**

Anti-double-stranded DNA (dsDNA) monoclonal antibody (MAb) is part of a new panel of reagents which recognizes subcellular organelles or compartments of human cells. This MAb recognizes the double-stranded DNA in human cells and may be useful in the identification of these organelles in cells; tissues; and biochemical preparations. It stains the nuclei in cell or tissue preparations and can be used as a nuclear marker in human cells. This MAb produces a homogeneous staining pattern in the nucleus of normal and malignant cells. DNA holds the genetic instructions for the development and function of living things.

E-Cadherin



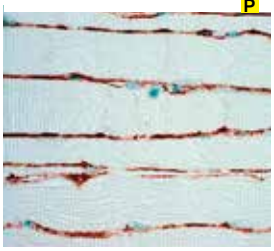
Colon carcinoma tissue stained Anti-E-Cadherin using DAB chromogen

Clone:	36
Isotype:	IgG1
Source:	Mouse
Immunogen:	C-terminal peptide of human E-cadherin
Specificity:	E-Cadherin
Localization:	Membrane
Pre-treatment:	EZ-AR1
Manual/i6000:	HK546-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AM390-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM390-10M**
Xmatrx®	**AX390-YCD, AX390-50D**
NanoVip™®	**AX390-4M**
Concentrated:	**MU390-UC, MU390-5UC**
Recommended Positive Control:	**FG-390M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-390M (Xmatrx & NanoVip™)**

E-Cadherin (123-kD) is a cell surface glycoprotein responsible for Ca^{2+}-dependent intercellular adhesion between epithelial cells. Alterations in the cell-cell adhesion mechanism mediated by E-Cadherin which is lightly associated with alpha catenin may have implications in the metastatic potential of prostate carcinoma. E-Cadherin may also play a role in adhesion of dendritic epidermal T cells to keratinocytes. Clone 36 may be used to investigate the process of tumor invasion.

Dystrophin



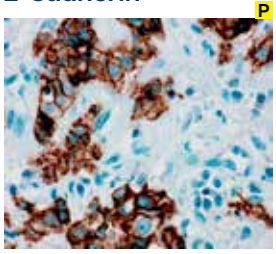
Skeletal muscle tissue stained with Anti-Dystrophin using AEC chromogen

Clone:	Dys2 (Dy8/6C5)
Isotype:	IgG1
Source:	Mouse
Immunogen:	Synthetic polypeptide consisting of the last 17 amino acids at the carboxy terminus of the human dystrophin sequence
Specificity:	Dystrophin
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM244-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM244-10M**
Xmatrx®	**AX244-YCD, AX244-50D**
NanoVip™®	**AX244-4M**
Concentrated:	**MU244-UC, MU244-5UC**
Recommended Positive Control:	**FG-244M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-244M (Xmatrx & NanoVip™)**

Dystrophin is the protein product of the Duchenne and Becker muscular dystrophy (DMD/BMD) gene with a relative molecular mass of 400 kD. Antibodies to dystrophin show that DMD individuals lack dystrophin in their muscle cells or that dystrophin is present at very low levels, whereas BMD individuals produce a protein with reduced abundance or abnormal size. This monoclonal antibody reacts with an epitope spanning the mid-rod domain between amino acids 1181 and 1388 of human dystrophin. This antibody stains membrane in skeletal, cardiac, and smooth muscle dystrophin from normal human tissue and some animals.

E-Cadherin



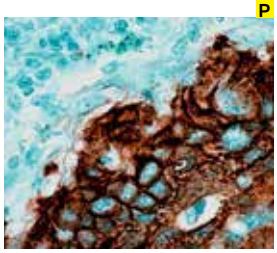
Breast carcinoma tissue stained with anti-E-cadherin using DAB chromogen

Clone:	EP6
Isotype:	IgG1
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues in the 5th cadherin domain of human E-Cadherin protein.
Specificity:	E-Cadherin
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN725-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN725-10M**
Xmatrx®	**AY725-YCD, AY725-50D**
NanoVip™®	**AY725-4M**
Concentrated:	**NU725-UC, NU725-5UC**
Recommended Positive Control:	**FG-725N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-725N (Xmatrx & NanoVip™)**

E-Cadherin is a transmembrane glycoprotein that plays an important role in epithelial cell adhesion. In prostate carcinomas, the expression of E-cadherin is reported to be reduced or absent in comparison with its expression in normal prostate which is uniformly strong. A decreased expression of E-Cadherin is associated with metastatic potential and poor prognosis in breast carcinoma and esophagus carcinoma. In combination with p120 Catenin or Cytokeratin, it is useful for the differentiation between ductal (E-Cadherin positive) and lobular (E-Cadherin negative) breast carcinomas. It may also help in diagnosis of mesothelioma.

EGFR



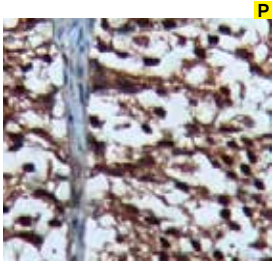
Squamous Cell carcinoma tissue stained with Anti-EGFR using DAB chromogen

Clone:	Polyclonal
Source:	Rabbit
Immunogen:	Synthetic peptide encompassing amino 1195 through 1210 of human EGFR
Specificity:	Epidermal Growth Factor Receptor
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR335-5RE**
Ready-to-Use (Automated):	
***i*6000™**	**AR335-10RE**
Xmatrx®	**AW335-YCDE, AW335-50DE**
NanoVip™®	**AW335-4ME**
Concentrated:	**PU335-UC, PU335-5UC**
Recommended Positive Control:	**FG-335PE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-335PE (Xmatrx & NanoVip™)**

EGFR (LRVAP) reacts with the 170 kD EGFR transmembrane glycoprotein. It binds specifically to the intracellular portion, regardless of phosphorylation state. The extracellular domain binds epidermal growth factor (EGF) as a proliferation signal. The EGFR antibody is made against a sequence which is unique from related tyrosine kinase receptors and hence shows no cross-reactivity.

EGFR



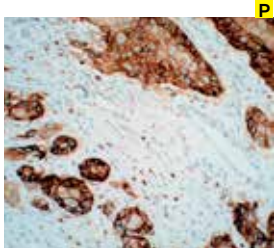
Transitional Cell Carcinoma tissue stained with Anti-EGFR using DAB Chromogen

Clone:	GFR/2596
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Human EGFR
Specificity:	EGFR
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC68-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC68-10M**
Xmatrx®	**AXC68-YCD, AXC68-50D**
NanoVip™®	**AXC68-4M**
Concentrated:	**MUC68-UC, MUC68-5UC**
Recommended Positive Control:	**FG-C68M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C68M (Xmatrx & NanoVip™)**

EGFR (Epidermal growth factor receptor) also known as HER1 or ErbB1, is a 170 kDa integral transmembrane tyrosine kinase glycoprotein belongs to HER/ERbB protein family. EGFR binding to its ligands (EGF, TGFα, Amphiregulin and HB-EGF) results in receptor dimerization, autophosphorylation, activation of downstream signaling, internalization, and lysosomal degradation. Overexpression of EGFR is observed in tumors of the head and neck, stomach brain, bladder, breast, endometrium, esophagus, cervix, lung vulva, ovary, stomach and in squamous cell carcinoma.

EGFR



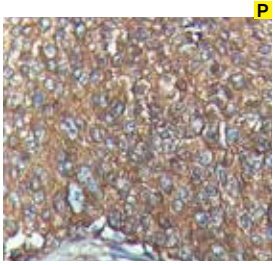
Lung sarcoma tissue stained with Anti-EGFR using DAB chromogen

Clone:	EP22
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic phoshpeptide corresponding to residues Tyr1068 of human EGFR was used as immunogen.
Specificity:	Human EGFR
Localization:	Membrane & cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN781-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AN781-10ME**
Xmatrx®	**AN781-YCDE, AN781-50DE**
NanoVip™®	**AN781-4ME**
Concentrated:	**NU781-UCE, NU781-5UCE**
Recommended Positive Control:	**FG-781NE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-781NE (Xmatrx & NanoVip™)**

Epidermal growth factor receptor (EGFR) is a 170 kDa transmembrane glycoprotein receptor tyrosine kinase that, activated by epidermal growth factor (EGF), affects cell growth and differentiation. The antibody detects both EGFR phosphorylated on Tyr1068 of the nature human isoform 1 (corresponding to Y1092 from the precursor form P00533-1/p170), and also unphosphorylated EGFR. It is associated with a number of carcinomas, including lung carcinoma, anal carcinomas[7] and glioblastoma multiforme.

EMA



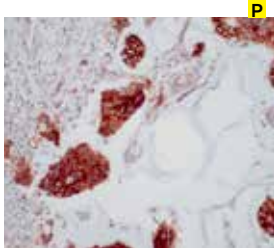
Breast carcinoma tissue stained with Anti-EMA using DAB chromogen

Clone:	GP1.4
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human EMA
Specificity:	EMA
Localization:	Mem/Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB78-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB78-10M**
Xmatrx®	**AXB78-YCD, AXB78-50D**
NanoVip™®	**AXB78-4M**
Concentrated:	**MUB78-UC, MUB78-5UC**
Recommended Positive Control:	**FG-B78M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B78M (Xmatrx & NanoVip™)**

pithelial membrane antigen antibody (EMA) also known as episialin, is a member of heterogeneous family of highlyglycosylated transmembrane proteins known as human milk fat globule (HMFG) membrane proteins. It is expressed in normal and neoplastic epithelial cells of various tissues and lesser degree of staining is seen in carcinomas of the endometrium, kidney, thyroid, stomach, Breast Carcinoma, lung, colon, ovary, prostate and cervix. EMA is also positive in meningiomas, which is useful when distinguishing it from other intracranial neoplasms e.g. Schwannomas. It labels Reed-Sternberg cells in nodular lymphocyte predominant Hodgkin's lymphoma and anaplastic large cell lymphomas.

Ep-CAM



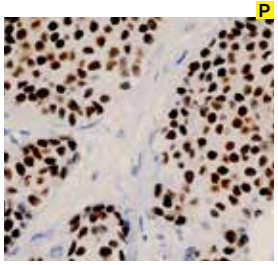
Adenoma tissue stained with Anti-Ep-CAM using DAB chromogen

Clone:	EP155
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human epithelial antigen (EpCAM) protein. Ep-CAM is a highly conserved type I transmembrane glycoprotein and is expressed on most normal and malignant epithelial cells
Specificity:	Human Ep-CAM
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN820-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN820-10M**
Xmatrx®	**AY820-YCD, AY820-50D**
NanoVip™®	**AY820-4M**
Concentrated:	**NU820-UC, NU820-5UC**
Recommended Positive Control:	**FG-820N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-820N (Xmatrx & NanoVip™)**

Ep-CAM is a highly conserved type I transmembrane glycoprotein and is expressed on most normal and malignant epithelial cells. Ep-CAM is also known as epithelial cell adhesion molecule or MOC31, Ber-EP4. It is detected at the membrane/cytoplasm of the majority of epithelial tissues (all simple, pseudo-stratified and transitional epithelial), with the exception of the adult squamous epithelium and some epithelium-derived cell, such as hepatocytes, epidermal keratinocytes, gastric parietal cells, myoepithelial cells, and thymic cortical epithelium.

EPCAM



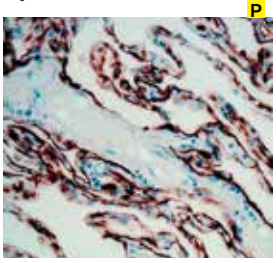
Intestine tissue stained with Anti-EPCAM using DAB chromogen

Clone:	MOC-31
Isotype:	IgG1, kappa
Source:	Mouse
Immunogen:	Human EPCAM
Specificity:	EPCAM
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC16-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC16-10M**
Xmatrx®	**AXC16-YCD, AXC16-50D**
NanoVip™®	**AXC16-4M**
Concentrated:	**MUC16-UC, MUC16-5UC**
Recommended Positive Control:	**FG-C16M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C16M (Xmatrx & NanoVip™)**

Estrogen receptor α(also known as ERα, ER-alpha, Estradiol receptor, Nuclear receptor subfamily 3 group A member 1) is a ligand-activated transcription factor belongs to steroid/thyroid hormone receptor superfamily. It is critically involved in regulating the normal function of reproductive tissues. ERα also regulates transcription by recruiting coactivator proteins and interacting with general transcriptional machinery. Its expression has been reported in nucleus of mammary gland, ovary, uterus, bone, testes, prostrate and adipose tissue.

Epithelial Membrane Antigen (EMA)



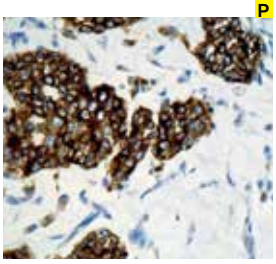
Lung tissue stained with Anti-EMA stained using DAB chromogen

Clone:	E29
Isotype:	IgG2a Kappa
Source:	Mouse
Immunogen:	Delipidated extract of human cream
Specificity:	EMA
Localization:	Membrane & Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM057-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM057-10M**
Xmatrx®	**AX057-YCD, AX057-50D**
NanoVip™®	**AX057-4M**
Concentrated:	**MU057-UC, MU057-5UC**
Recommended Positive Control:	**FG-057M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-057M (Xmatrx & NanoVip™)**

Epithelial Membrane Antigen (EMA), also known as milk fat globule membrane protein, is present on the luminal surface of mammary gland epithelium. Although EMA is primarily located in mammary gland epithelium, other normal epithelia (e.g., lung) will also react against EMA antibody. Cells obtained from solid metastases and pleural effusions accompanying a breast carcinoma will react with EMA antibody. It may also be useful for identification of meningioma.

Epithelial Membrane Antigen (EMA)



Breast Carcinoma tissue stained with Anti-EMA using DAB chromogen

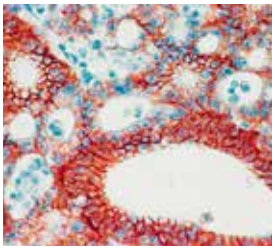
Clone:	Mc5
Isotype:	IgG1
Source:	Mouse
Immunogen:	Delipidated human milk fat globules
Specificity:	Epithelial membrane antigen
Localization:	Membrane & Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM182-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM182-10M**
Xmatrx®	**AX182-YCD, AX182-50D**
NanoVip™®	**AX182-4M**
Concentrated:	**MU182-UC, MU182-5UC**
Recommended Positive Control:	**FG-182M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-182M (Xmatrx & NanoVip™)**

The mucin antigen recognized by Mc5 is a glycosylated molecule with a molecular mass of 400 kD. The sequence to which this antibody binds is Thr-Arg-Pro-Ala-Pro. Although EMA is primarily located in mammary gland epithelium, other normal epithelia (e.g., lung) will also react against EMA antibody. Staining, however, is the strongest in mammary epithelia. The combination of positive staining for keratin with negative EMA can be used to phenotype the above-mentioned epithelial tumors.

Epithelial Specific Antigen

P



Adeno carcinoma tissue stained with Anti-ESA using AEC chromogen

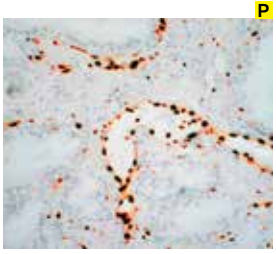
Clone:	MOC-31
Isotype:	IgG1
Source:	Mouse
Immunogen:	Cell line from small cell lung carcinoma, CD2 epithelial antigen
Specificity:	40 kD epithelial-specific cluster 2 antigen
Localization:	Membrane
Pre-treatment:	EZ-AR1
Manual/i6000	HK546-XAK
Xmatrx	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AM316-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM316-10M**
Xmatrx®	**AX316-YCD, AX316-50D**
NanoVip™®	**AX316-4M**
Concentrated:	**MU316-UC, MU316-5UC**
Recommended Positive Control:	**FG-316M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-316M (Xmatrx & NanoVip™)**

Monoclonal antibody MOC-31 recognizes the cluster 2 antigen which is a 40 kD transmembrane glycoprotein present on the membrane of epithelial cells. Since MOC-31 reacts with virtually all normal epithelia and adenocarcinomas but not with mesothelial cells, this antibody can serve as a reliable marker for determining the origin of pleural and peritoneal tumors. This antibody stains a membrane glycoprotein on epithelial cells, but not mesothelial cells.

ERG

P



Prostate tissue stained with Anti-ERG using DAB chromogen

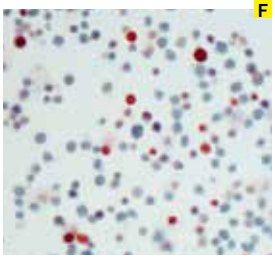
Clone:	EP111
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues on the C-terminus of human ERG Protein
Specificity:	Human ERG
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN782-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN782-10M**
Xmatrx®	**AY782-YCD, AY782-50D**
NanoVip™®	**AY782-4M**
Concentrated:	**NU782-UC, NU782-5UC**
Recommended Positive Control:	**FG-782N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-782N (Xmatrx & NanoVip™)**

ERG is directed against the C-terminus of the ETS transcription regulator, ERG, and is capable of detecting both wildtype ERG, and truncated ERG resulting from ERG gene rearrangement. This antibody exhibits a nuclear staining pattern and may be used to aid in the identification of prostate adenocarcinomas through the detection of truncated ERG. This ERG antibody also recognizes Fli-1 by western blot analysis.

Epstein-Barr Virus (EBV) Early Antigen

F



Cell Culture tissue stained with Anti-EBV using AEC chromogen

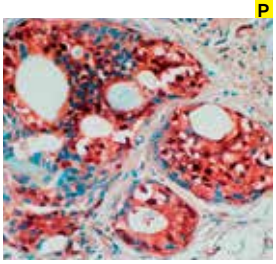
Clone:	1108-1
Isotype:	IgG1
Source:	Mouse
Immunogen:	Immunoprecipitated EBV early antigens
Specificity:	Immunoprecipitated EBV early antigens
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM222-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AM222-10ME**
Xmatrx®	**AX222-YCDE, AX222-50DE**
NanoVip™®	**AX222-4ME**
Concentrated:	**MU222-UCE, MU222-5UCE**
Recommended Positive Control:	**FG-222ME (Manual & i6000)**
Recommended Microchamber Slide:	**FB-222ME(Xmatrx & NanoVip™)**

This antibody produces an intense, diffuse or speckled staining pattern in the nucleus of paraformaldehyde/acetone-fixed cells expressing the early antigen of EBV by immunohistochemical techniques. The Epstein-Barr Virus is the causative agent of infectious mononucleosis and is associated with two human neoplasms, Burkitt's lymphoma and nasopharyngeal carcinoma. Monoclonal antibody 1108-1 detects the diffuse early antigen of EBV. It specifically recognizes a 55;50 kD protein complex associated with the early antigen of Epstein-Barr Virus (EBV).

Estradiol

P



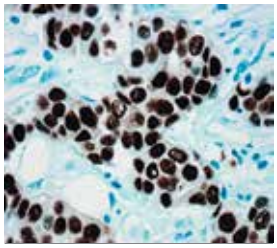
Breast carcinoma tissue stained with Anti-Estradiol using AEC chromogen

Clone:	Polyclonal
Source:	Rabbit
Immunogen:	17-beta-estradiol conjugated to bovine serum albumin.
Specificity:	Estradiol
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR038-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AR038-10RE**
Xmatrx®	**AW038-YCDE, AW038-50DE**
NanoVip™®	**AW038-4M**
Concentrated:	**PU038-UPE, PU038-5UPE**
Recommended Positive Control:	**FG-038PE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-038PE (Xmatrx & NanoVip™)**

Estradiol plays an important role in the genesis and development of human breast carcinoma and endometrial carcinoma. It is synthesized primarily in the ovary, but also in the placenta, testis, and possibly the adrenal cortex. Estradiol is also produced by testicular Leydig tumors, as well as by Sertoli tumors of the testis and ovary. It is also produced in mammary gland carcinoma, and carcinoma of the adrenal cortex.

Estrogen Receptor P



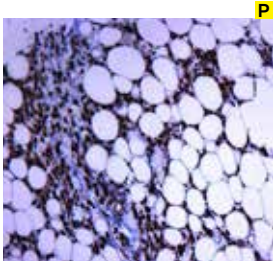
Breast carcinoma tissue stained with Anti-ER-Alpha using DAB chromogen

Clone:	EP1
Isotype:	IgG
Source:	Rabbit
Immunogen:	Recombinant Estrogen Receptor protein
Specificity:	Estrogen receptor protein
Localization:	Nuclear
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN710-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AN710-10ME**
Xmatrx®	**AN710-YCDE, AN710-50DE**
NanoVip™®	**AN710-4ME**
Concentrated:	**NU710-UCE, NU710-5UCE**
Recommended Positive Control:	**FG-710NE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-710NE (Xmatrx & NanoVip™)**

Estrogen Receptor-Alpha (ER Alpha) is a nuclear protein and member of the steroid hormone receptor family. ER Alpha possess both DNA binding and ligand binding domains, and exerts a significant role in activating the transcription of certain genes. Ligand-dependent dimerization and phosphorylation both function to regulate the transcriptional activation of ER alpha. This antibody stains nucleus of neoplastic cells in the breast ductal carcinoma tissues by immunohistochemical techniques.

Estrogen Receptor beta 1



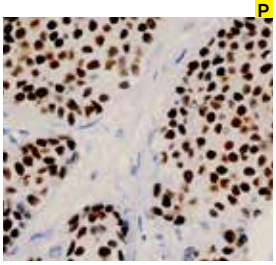
Breast carcinoma tissue stained with Anti-ERα using DAB chromogen

Clone:	ERb455
Isotype:	IgG2a
Source:	Mouse
Immunogen:	Human Estrogen Receptor beta 1
Specificity:	Estrogen Receptor beta 1
Localization:	Nuclear
Pre-treatment:	EZ-AR1
Manual/i6000:	HK521-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AMB30-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AMB30-10ME**
Xmatrx®	**AXB30-YCDE, AXB30-50DE**
NanoVip™®	**AXB30-4ME**
Concentrated:	**MUB30-UCE, MUB30-5UCE**
Recommended Positive Control:	**FG-B30ME (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B30ME(Xmatrx & NanoVip™)**

Human Estrogen Receptor beta 1 (ERb1) is an isoform of estrogen receptor beta (ERb), and belongs to the superfamily of nuclear receptor transcription factors. The gene product has a DNA binding domain and a ligand binding domain, and is localized in nucleus and cytoplasm. ERb is highly homologous to human estrogen receptor alpha (ERa) and displays 96% and 58% homology in the DNA and ligand binding domains, respectively. ERb is expressed in various normal and neoplastic cells. Its expression in neoplasm was first identified in breast carcinoma, and ERb-positive breast carcinomas have shown to have better survival with adjuvant tamoxifen treatment, independent of ERa expression.

Estrogen Receptor Alpha



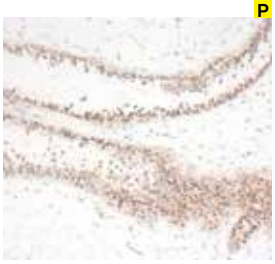
Breast Carcinoma tissue stained with ANti-ERα using DAB chromogen

Clone:	1D5
Isotype:	IgG1, kappa
Source:	Mouse
Immunogen:	Human Estrogen Receptor Alpha
Specificity:	Estrogen Receptor Alpha
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC94-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC94-10M**
Xmatrx®	**AXC94-YCD, AXC94-50D**
NanoVip™®	**AXC94-4M**
Concentrated:	**MUC94-UC, MUC94-5UC**
Recommended Positive Control:	**FG-C94M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C94M (Xmatrx & NanoVip™)**

Estrogen receptor α(also known as ERα, ER-alpha, Estradiol receptor, Nuclear receptor subfamily 3 group A member 1) is a ligand-activated transcription factor belongs to steroid/thyroid hormone receptor superfamily. It is critically involved in regulating the normal function of reproductive tissues. ERα also regulates transcription by recruiting coactivator proteins and interacting with general transcriptional machinery. Its expression has been reported in nucleus of mammary gland, ovary, uterus, bone, testes, prostrate and adipose tissue.

Estrogen Receptor α



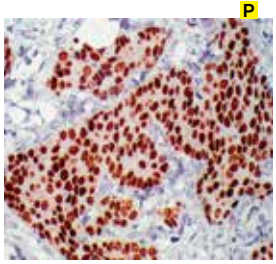
Lung tissue stained with Anti-ERα using DAB chromogen

Clone:	ESR1/1935
Isotype:	IgG2a
Source:	Mouse
Immunogen:	Recombinant full-length human ERα protein
Specificity:	ERα
Localization:	Nuclear
Pre-treatment:	EZ-AR1
Manual/i6000:	HK546-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**c-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AM924-10ME**
Xmatrx®	**AX924-YCDE, AX924-50DE**
NanoVip™®	**AX924-4ME**
Concentrated:	**MU924-UCE, MU924-5UCE**
Recommended Positive Control:	**FG-924ME (Manual & i6000)**
Recommended Microchamber Slide:	**FB-924ME(Xmatrx & NanoVip™)**

Estrogen Receptor alpha (ERα) is specific to ER alpha and shows minimal cross-reaction with other members of the family. ER is an important regulator of growth and differentiation in the mammary gland. Presence of ER in breast tumors indicates an increased likelihood of response to anti-estrogen (e.g. tamoxifen) therapy. It strongly stains nuclei of epithelial cells in breast carcinomas.

Estrogen Receptor (InSite® ER)



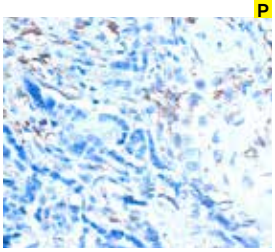
Breast carcinoma tissue stained with Anti-ER using DAB chromogen

Clone:	ER88
Isotype:	IgG1
Source:	Mouse
Immunogen:	Recombinant Estrogen Receptor protein
Specificity:	Estrogen receptor protein
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM368-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AM368-10ME**
Xmatrx®	**AX368-YCDE, AX368-50DE**
NanoVip™®	**AX368-4ME**
Concentrated:	**MU368-UCE, MU368-5UCE**
Recommended Positive Control:	**FG-368ME (Manual & i6000)**
Recommended Microchamber Slide:	**FB-368ME(Xmatrx & NanoVip™)**

Estrogen receptor (ER) content of breast carcinoma tissue is an important parameter in the prediction of prognosis and response to endocrine therapy. Highly specific monoclonal antibodies to ER have allowed the determination of receptor status of breast tumors to be carried out. This antibody stains the nucleus of receptor positive cells.

Factor XIIIa



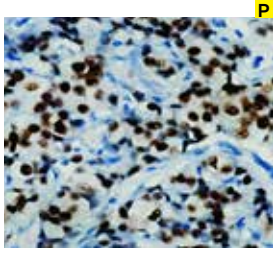
Placenta tissue stained with Anti-Factor XIIIa using DAB chromogen

Clone:	AC-1A1
Isotype:	IgG1/k
Source:	Mouse
Immunogen:	Recombinant human protein corresponding to A-subunit of coagulation Factor XIII.
Specificity:	Factor XIIIa
Localization:	Cytoplasm
Pre-treatment:	EZ-AR1
Manual/i6000:	HK521-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AMA11-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA11-10M**
Xmatrx®	**AXA11-YCD, AXA11-50D**
NanoVip™®	**AXA11-4M**
Concentrated:	**MUA11-UC, MUA11-5UC**
Recommended Positive Control:	**FG-A11M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A11M (Xmatrx & NanoVip™)**

Factor XIII is a zymogen which is converted into its active form, Factor XIII, by Thrombin. Factor XIII has potentially 2 catalytically active subunits (Factor XIIIa) and 2 inhibitory subunits (Factor XIIIb). Factor XIIIa is a protransglutaminase that belongs to a family of transglutaminases. It catalyzes the formation of covalent cross-links in fibrin. Without Factor XIIIa, a protransglutaminase that belongs to a family of transglutaminases, fibrin is instable and physiologically inadequate. Factor XIIIa consists of 732 amino acids and a molecular mass of 83 kDa.

ETV4



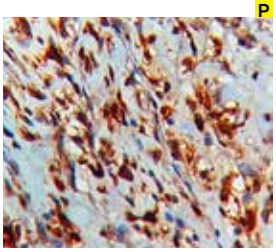
Colon tissue stained with Anti-ETV4 using DAB chromogen

Clone:	Polyclonal
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human ETV4
Specificity:	ETV4
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ARB63-5M**
Ready-to-Use (Automated):	
***i*6000™**	**ARB63-10R**
Xmatrx®	**AWB63-YCD, AWB63-50D**
NanoVip™®	**AWB63-4M**
Concentrated:	**PUB63-UP, PUB63-5UP**
Recommended Positive Control:	**FG-B63P (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B63P (Xmatrx & NanoVip™)**

ETS translocation variant 4 (ETV4) also named as E1A-F or PEA3, is 484 amino acid protein, which has one ETS DNAbinding domain and belongs to the ETS family. ETV4 is a transcription activator that localizes in the nucleus and binds to the enhancer of the adenovirus E1A gene. It is a Prognostic marker in Colon carcinoma (unfavorable) and thyroid carcinoma (favorable).

Factor XIIIa



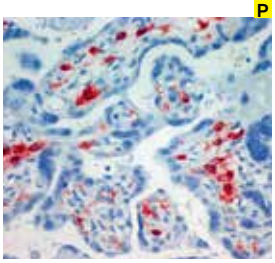
Stomach tissue stained with Anti-Factor XIIIa using DAB chromogen

Clone:	F13A1/1683
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Human Factor XIIIa
Specificity:	Factor XIIIa
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AMC40-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC40-10M**
Xmatrx®	**AXC40-YCD, AXC40-50D**
NanoVip™®	**AXC40-4M**
Concentrated:	**MUC40-UC, MUC40-5UC**
Recommended Positive Control:	**FG-C40M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C40M (Xmatrx & NanoVip™)**

Factor XIIIa has been identified in platelets, megakaryocytes, monocytes, macrophages and fibroblast-like mesenchymal or histiocytic cells in the uterus, placenta, prostate, and dermal dendritic cells. The expression of factor XIIIa is useful in differentiating between dermatofibroma (90% (+)), dermatofibrosarcoma protuberans (25%(+)) and desmoplastic malignant melanoma (0%(+)). It is a dermal dendrocyte marker and its expression is also seen in capillary hemagioblastoma, hemangioendothelioma, hemangiopericytoma, xanthogranuloma, xanthoma, hepatocellular

Factor XIII Subunit A



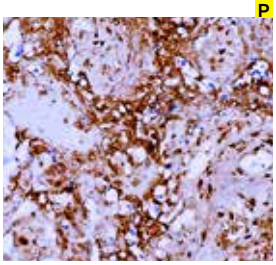
Placenta tissue stained with Anti-Factor XIII using AEC chromogen

Clone:	E980.1
Isotype:	IgG1
Source:	Mouse
Immunogen:	Prokaryotic recombinant protein corresponding to a portion of the C-terminus of factor XIIIa molecule
Specificity:	Coagulation Factor XIIIa
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM337-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM337-10M**
Xmatrx®	**AX337-YCD, AX337-50D**
NanoVip™®	**AX337-4M**
Concentrated:	**MU337-UC, MU337-5UC**
Recommended Positive Control:	**FG-337M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-337M (Xmatrx & NanoVip™)**

The enzyme Factor XIII is a protransglutaminase involved in the final part of the coagulation pathway, stabilizing clot formation by cross-linking fibronectin to collagen. Factor XIII is found within a variety of dendritic cells in connective tissues. It plays a general role in various processes such as cell proliferation and tissue remodeling, including embryonic and fetal embryogenesis, wound healing, atherosclerosis, and tumor growth. This antibody stains the cytoplasm of positive cells.

Fibronectin



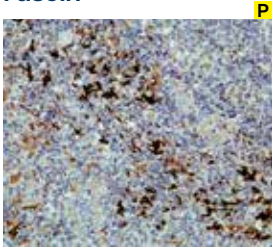
Placenta tissue stained with Anti-Fibronectin using DAB Chromogen

Clone:	EP5
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human Fibronectin
Specificity:	Fibronectin
Localization:	Ext matrix & Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC60-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC60-10M**
Xmatrx®	**AXC60-YCD, AXC60-50D**
NanoVip™®	**AXC60-4M**
Concentrated:	**MUC60-UC, MUC60-5UC**
Recommended Positive Control:	**FG-C60M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C60M (Xmatrx & NanoVip™)**

Fibronectin (FN) is a 240 kDa disulfide-bonded dimer glycoprotein of the extracellular matrix present on most cell surfaces, in extracellular fluids and in plasma. It binds to distinct ECM components such as collagens, growth factors and cell surface integrins to carry on many essential biological processes including cell adhesion, cell migration, hemostasis, thrombosis, tissue repair, fibrosis, and tumor development. Fibronectin is most abundantly expressed during embryonic development and tissue remodeling. Several isoforms of fibronectin are highly expressed during fibrosis and carcinoma development, and are potential diagnostic and therapeutic targets.

Fascin



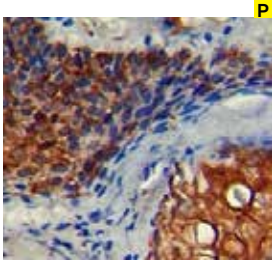
Lymph Node tissue stained with Anti-Fascin using DAB chromogen

Clone:	FCN01
Isotype:	IgG
Source:	Mouse
Immunogen:	Fascin purified from HeLa cells
Specificity:	Fascin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM488-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM488-10M**
Xmatrx®	**AX488-YCD, AX488-50D**
NanoVip™®	**AX488-4M**
Concentrated:	**MU488-UC, MU488-5UC**
Recommended Positive Control:	**FG-488M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-488M (Xmatrx & NanoVip™)**

Human fascin is a highly conserved actin-binding protein. Fascin, encoded by the human homolog for the sn (hsn) gene, has been localized to microspikes and stress fibers of cultured cells where it is thought to be involved in the formation of microfilament bundles. It is expressed predominantly in dendritic cells. Lymphoid cells, myeloid cells and plasma cells are negative. However. Reed Sternberg cells in Hodgkin's lymphoma are positive for fascin staining. Epstein-Barr virus may induce expression of fascin in B cells.

Filaggrin



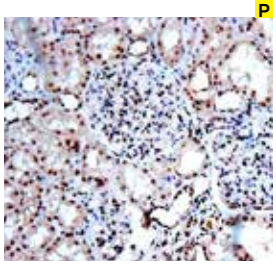
Skin tissue stained with Anti-Filaggrin using DAB chromogen

Clone:	FLG/1562
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human Filaggrin
Specificity:	Filaggrin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB37-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB37-10M**
Xmatrx®	**AXB37-YCD, AXB37-50D**
NanoVip™®	**AXB37-4M**
Concentrated:	**MUB37-UC, MUB37-5UC**
Recommended Positive Control:	**FG-B37M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B37M (Xmatrx & NanoVip™)**

Filaggrin protein is an intermediate filament-associated protein that aggregates keratin intermediate filaments in epidermis. It is initially synthesized as a polyprotein precursor molecule, profilaggrin (a large, insoluble, highly phosphorylated precursor protein containing several tandem copies of a 324 amino acid). Profilaggrin is proteolytically processed into active filaggrin molecules and these molecules promote aggregation by forming disulfide-bond of keratin intermediate filaments during terminal differentiation of the epidermis. Filaggrin expression is seen only in well differentiated keratinized epithelial cells. Mutations in this gene are associated with ichthyosis vulgaris with viral, premalignant and malignant conditions.

Human FLI-1



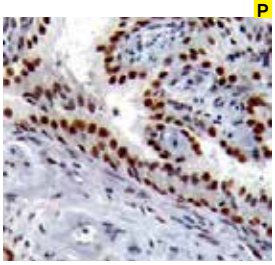
Kidney tissue stained with Anti-Human FLI-1 using DAB Chromogen

Clone:	MRQ-1
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Human Human FLI-1
Specificity:	Human FLI-1
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB24-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB24-10M**
Xmatrx®	**AXB24-YCD, AXB24-50D**
NanoVip™®	**AXB24-4M**
Concentrated:	**MUB24-UC, MUB24-5UC**
Recommended Positive Control:	**FG-B24M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B24M (Xmatrx & NanoVip™)**

FLI-1 is a member of ETS family of transcription factors, also known as Friend leukaemia integration-1. It is involved in cell proliferation, tumorigenesis and blood vessel development. A chromosomal aberration involving FLI-1 is found in patients with Ewing sarcoma. Positive nuclear FLI-1 staining helps diagnosis of Ewing sarcoma and vascular tumors Cytoplasmic staining is also present in benign and malignant breast epithelium and eccrine sweat glands of the skin.

FOXP1



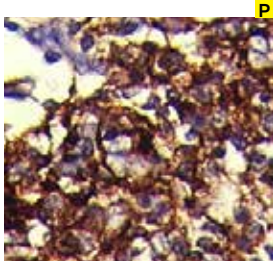
Prostate tissue stained with Anti-FOXP1 using DAB Chromogen

Clone:	FOXP1/44R
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human FOXP1
Specificity:	FOXP1
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ANC89-5M**
Ready-to-Use (Automated):	
***i*6000™**	**ANC89-10M**
Xmatrx®	**AYC89-YCD, AYC89-50D**
NanoVip™®	**AYC89-4M**
Concentrated:	**NUC89-UC, NUC89-5UC**
Recommended Positive Control:	**FG-C89N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C89N (Xmatrx & NanoVip™)**

FOXP1 is responsible for regulating a variety of important aspects such as immune response, organ development and the development of carcinoma. Strong expression of FOXP1 is observed in variety of B cell malignancies, breast carcinoma and endometrial carcinoma.

CD35



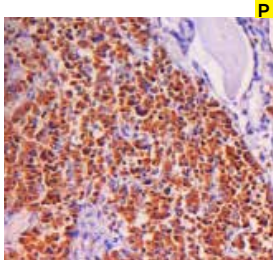
Lung tissue stained with Anti-CD35 using DAB chromogen

Clone:	To5
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human CD35
Specificity:	Factor CD35
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA78-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA78-10M**
Xmatrx®	**AXA78-YCD, AXA78-50D**
NanoVip™®	**AXA78-4M**
Concentrated:	**MUA78-UC, MUA78-5UC**
Recommended Positive Control:	**FG-A78M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A78M (Xmatrx & NanoVip™)**

CD35, also known as complement receptor 1 (CR1), is a 220-300 kDa N-glycosylated member of the RCA (regulators of complement activation) family of proteins. It is a cell membrane-bound, monomeric glycoprotein and its primary function is act as the receptor for complement components C3b and C4b, and it mediates the phagocytosis by neutrophils and monocytes of particles coated with C3b or C4b. CD35 binds and internalizes particles and immune complexes that are opsonized with MBL or complement components C3b, C3i, C4b, or C1q.CD35 additionally protects the cell from complement-mediated lysis by serving as a cofactor for Factor I and inhibiting the C3 and C5 convertases.

FSH-BETA



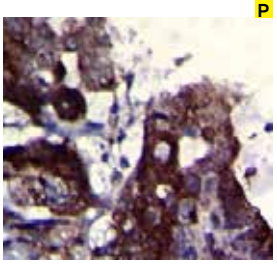
Pituitary tissue stained with FSH-BETA using DAB chromogen

Clone:	FSHb/1062
Isotype:	IgG1, kappa
Source:	Mouse
Immunogen:	Human FSH-BETA
Specificity:	FSH-BETA
Localization:	Cytoplasm
Pre-treatment:	EZ-AR1
Manual/i6000:	HK521-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AM986-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM986-10M**
Xmatrx®	**AX986-YCD, AX986-50D**
NanoVip™®	**AX986-4M**
Concentrated:	**MU986-UC, MU986-5UC**
Recommended Positive Control:	**FG-986M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-986M (Xmatrx & NanoVip™)**

Follicle stimulating hormone (FSH), is one member of the pituitary glycoprotein hormone family, consisting of an alpha subunit and beta subunit (FSH-beta). FSH is synthesized and secreted by the gonadotropic cells of the anterior pituitary gland, and regulates the development and growth, including pubertal maturation, and reproductive processes.FSH plays a role of stimulation of graafian follicles of the ovary and assistance of subsequent maturation and the secretion of estradiol. It also stimulates the epithelium of the seminiferous tubules and partially responsible to spermatogenesis.

Galectin-3



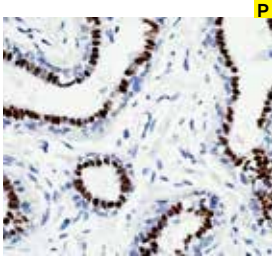
GIST tissue stained with Anti-Galectin-3 using DAB Chromogen

Clone:	B2C10
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human Galectin-3
Specificity:	Galectin-3
Localization:	Nuc & Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ANB39-5M**
Ready-to-Use (Automated):	
***i*6000™**	**ANB39-10M**
Xmatrx®	**AYB39-YCD, AYB39-50D**
NanoVip™®	**AYB39-4M**
Concentrated:	**NUB39-UC, NUB39-5UC**
Recommended Positive Control:	**FG-B39N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B39N (Xmatrx & NanoVip™)**

Galectin 3 also designated as Mac-2, hMac-2, GALBP, CBP35 or LGALS3, belongs to galectin family which are soluble b galactoside-binding animal lectins. They modulate cell-to-cell adhesion and cell-to-extracellular matrix (ECM) interactions and play a role in tumor progression, pre-mRNA splicing and apoptosis. Galcetin-3 is a chimera galectin that has a tendency to dimerize. It promotes cell growth and proliferation for many cell types. Galectin-3 acts intracellularly to prevent apoptosis. It exhibits pro- or anti-adhesive properties on different type of cells. Galectin-3 chemoattracts monocytes and macrophages.

GATA-3



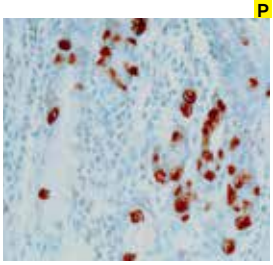
Breast carcinoma stained with Anti-GATA-3 using DAB Chromogen

Clone:	GATA3/6664
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Human GATA-3
Specificity:	GATA-3
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ANB89-5M**
Ready-to-Use (Automated):	
***i*6000™**	**ANB89-10M**
Xmatrx®	**AYB89-YCD, AYB89-50D**
NanoVip™®	**AYB89-4M**
Concentrated:	**NUB89-UC, NUB89-5UC**
Recommended Positive Control:	**FG-B89N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B89N (Xmatrx & NanoVip™)**

GATA-3 (GATA binding protein 3) belongs to the family of transcription factor, which bind directly to the nucleotide sequence core element to control diverse tissue-specific programs of gene expression and morphogenesis. Its expression is seen in hematopoietic and non-hematopoietic tissues/cells such as mammary glands and T cells. GATA-3 functions as a major regulator of T helper 2 cell (Th2) differentiation in immune cells and differentiation of luminal epithelial cells in mammary glands. GATA-3 has also been a novel marker for bladder carcinoma and also expression is seen in 67% of 308 urothelial carcinomas but no prostate or renal carcinomas.

Gastrin



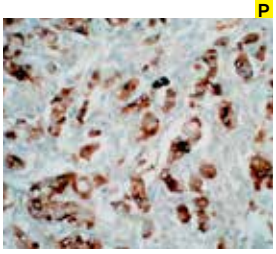
Stomach tissue stained with Anti-Gastrin using DAB chromogen

Clone:	Polyclonal
Source:	Rabbit
Immunogen:	Synthetic human Gastrin-I bound to keyhole limpet hemocyanin (KLH) with carbodiimide
Specificity:	Gastrin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR019-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AR019-10RE**
Xmatrx®	**AW019-YCDE, AW019-50DE**
NanoVip™®	**AW019-4M**
Concentrated:	**PU019-UPE, PU019-5UPE, PU019-1UPE**
Recommended Positive Control:	**FG-019PE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-019PE (Xmatrx & NanoVip™)**

The major source of Gastrin in the body is the antropyloric mucosa of the stomach. Significant increases in the antropyloric G-cell (gastrin producers) population occur in a wide variety of clinical conditions such as atrophic gastritis, pernicious anemia, gastric carcinoma, gastric outlet obstruction, Zollinger-Ellison syndrome, and duodenal ulcer disease. Neoplastic proliferations of the gastrin producing cells are frequently associated with the Zollinger-Ellison syndrome.

GCDFP-15



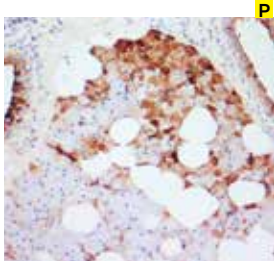
Breast carcinoma tissue stained with Anti-GCDFP-15 using DAB chromogen

Clone:	EP95
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human Gross Cystic Disease Fluid Protein-15.
Specificity:	Human GCDFP-15
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN856-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN856-10M**
Xmatrx®	**AY856-YCD, AY856-50D**
NanoVip™®	**AY856-4M**
Concentrated:	**NU856-UC, NU856-5UC**
Recommended Positive Control:	**FG-856N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-856N (Xmatrx & NanoVip™)**

Gross cystic disease fluid protein (GCDFP-15), also called prolactin inducible protein (PIP), is a single polypeptide chain with a versatile function in human reproductive and immunological systems. It is up regulated by prolactin and androgens, while it is down regulated by estrogen. In normal adult tissues, GCDFP-15 expression was found in all apocrine, lacrimal, ceruminous, and Moll's glands and in numerous serous cells of the submandibular, sublingual, and minor salivary glands. The serous cells of nasal and bronchial glands were also positive. It is used as a marker of apocrine differentiation.

GCDFP-15



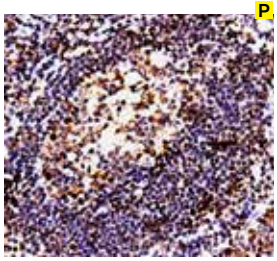
Breast carcinoma tissue stained with Anti-GCDFP-15 using DAB Chromogen

Clone:	PIP/1571
Isotype:	IgG2a
Source:	Mouse
Immunogen:	Recombinant human GCDFP-15 protein fragment
Specificity:	GCDFP-15
Localization:	Cell membrane
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM953-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM953-10M**
Xmatrx®	**AX953-YCD, AX953-50D**
NanoVip™®	**AX953-4M**
Concentrated:	**MU953-UC, MU953-5UC**
Recommended Positive Control:	**FG-953M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-953M (Xmatrx & NanoVip™)**

Anti-GCDFP-15 (Gross cystic disease fluid protein 15) monoclonal antibody recognizes GCDFP-15 protein of 15 kDa. It is a major protein component of benign breast gross cysts. It is a known marker of breast carcinoma as it is found in approximately 50% of all breast carcinoma specimens. GCDFP-15, also known as prolactin-inducible protein (PIP) is a prolactin and androgen controlled protein. This antibody is useful in the identification of metastatic breast carcinoma or fluid analysis.

GITR



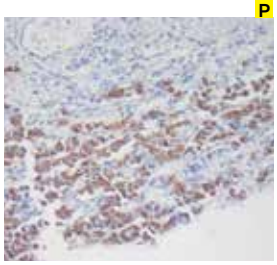
Tonsil tissue stained with Anti-GITR using DAB chromogen

Clone:	Polyclonal
Isotype:	IgG
Source:	Rabbit
Immunogen:	Synthetic peptide derected towards the C terminal of human TNFRSF18
Specificity:	Human GITR
Localization:	Cell Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR915-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AR915-10RE**
Xmatrx®	**AW915-YCDE, AW915-50DE**
NanoVip™®	**AW915-4ME**
Concentrated:	**PU915-UPE, PU915-5UPE**
Recommended Positive Control:	**FG-915PE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-915PE (Xmatrx & NanoVip™)**

GITR (Glucocorticoid-induced TNF receptor family-regulated gene), also known as TNFRS18, belongs to the TNF receptor superfamily (TNFRS). GITR is widely expressed in different cells of the immune system and its activation triggers the production of proinflammatory cytokines. GITR is constitutively expressed at high levels on Tregs and at low levels on naive and memory T cells. Activation of GITR with its ligand (GITRL) or with anti-GITR agonist antibodies (such as DTA-1) provides strong costimulatory signals for T cells.

Growth Hormone



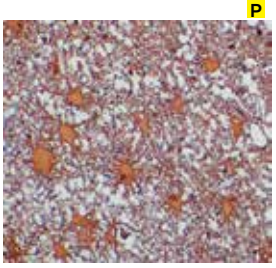
Pituitary tissue stained with Anti-GH using DAB Chromogen

Clone:	GH/1450
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Human Growth Hormone
Specificity:	GH
Localization:	Cell membrane
Pre-treatment:	EZ-AR1 Elegance
Manual/i6000:	HK546-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AM925-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AM925-10ME**
Xmatrx®	**AX925-YCDE, AX925-50DE**
NanoVip™®	**AX925-4ME**
Concentrated:	**MU925-UCE, MU925-5UCE**
Recommended Positive Control:	**FG-925ME (Manual & i6000)**
Recommended Microchamber Slide:	**FB-925ME(Xmatrx & NanoVip™)**

Pituitary growth hormone (GH) plays a crucial role in stimulating and controlling the growth, metabolism, and differentiation of many mammalian cell types by modulating the synthesis of multiple mRNA species. These effects are mediated by the binding of GH to its membrane-bound receptor and involve a phosphorylation cascade that results in the modulation of numerous signaling pathways. GH is synthesized by acidophilic or somatotropic cells of the anterior pituitary gland. Anti-GH is a useful marker in the classification of pituitary tumors and the study of pituitary disease (acromegaly).

Glial Fibrillary Acidic Protein (GFAP)



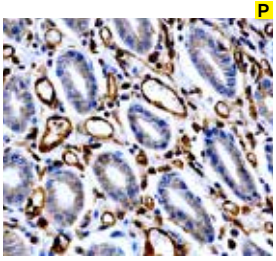
smooth muscle tissue stained with Anti-GFAP using DAB chromogen

Clone:	GA-5
Isotype:	IgG1
Source:	Mouse
Immunogen:	GFAP isolated from porcine spinal cord
Specificity:	Glial fibrillary acidic protein (GFAP)
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM020-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM020-10M**
Xmatrx®	**AX020-YCD, AX020-50D**
NanoVip™®	**AX020-4M**
Concentrated:	**MU020-UC, MU020-5UC**
Recommended Positive Control:	**FG-020M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-020M (Xmatrx & NanoVip™)**

Glial Fibrillary Acidic Protein (GFAP) is the subunit of the glial specific "intermediate" filament that includes desmin filaments in smooth muscle, vimentin filaments in cultured fibroblasts, keratin filaments in epithelium and neurofilaments in neural cells. This antibody stains human GFAP in positive astrocytes and other positive cells.

Gastrin



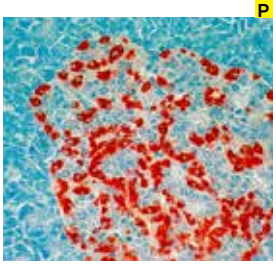
Stomach tissue stained with Anti-Gastrin using DAB Chromogen

Clone:	GAST/2634
Isotype:	IgG1, kappa
Source:	Mouse
Immunogen:	Human Gastrin
Specificity:	Gastrin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD34-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD34-10M**
Xmatrx®	**AXD34-YCD, AXD34-50D**
NanoVip™®	**AXD34-4M**
Concentrated:	**MUD34-UC, MUD34-5UC**
Recommended Positive Control:	**FG-D34M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D34M (Xmatrx & NanoVip™)**

Gastrin is a linear peptide hormone that regulates the secretion of gastric acid by gastric mucosa in the stomach. It is produced by G-cells of the pyloric antrum, D cells of the pancreatic islets and duodenal mucosa. Gastrin is regulated by epidermal growth factor and also enhances the smooth muscle contraction, secretion of hydrochloric acid (Hcl), increases blood circulation and water secretion in the stomach and intestine. It is expressed in G-cells of antral/pyloric mucosa, cells producing gastrin and is useful in differentiating gastric-secreting neoplastic and non-neoplastic neuroendocrine cells.

Glucagon



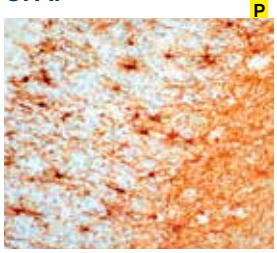
Pancreas tissue stained with Anti-Glucagon antibody using FAST RED chromogen

Clone:	Polyclonal
Isotype:	N/A
Source:	Rabbit
Immunogen:	Human Glucagon
Specificity:	Glucagon
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR039-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AR039-10RE**
Xmatrx®	**AW039-YCDE, AW039-50DE**
NanoVip™®	**AW039-4M**
Concentrated:	**PU039-UPE, PU039-5UPE**
Recommended Positive Control:	**FG-039PE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-039PE (Xmatrx & NanoVip™)**

Glucagon is a polypeptide of 29 amino acids produced by the pancreatic alpha cells. In addition to its well known effect of elevating blood glucose concentration, glucagon functions to inhibit gastric and pancreatic secretions. It stimulates fluid secretions from the intestine and suppresses the release of gastrin. Tumors producing large amounts of glucagon are referred to as glucagonomas. Glucagon-producing A cells occupy dispersed locations throughout the islet with some clustering along the periphery. They constitute 15% to 20% of the islet cell population.

GFAP



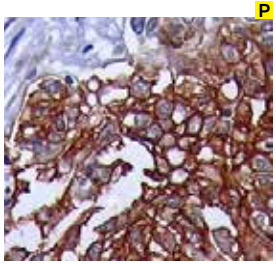
Cerebrum tissue stained with Anti-GFAP using DAB chromogen

Clone:	EP13
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues on the C-terminus of human Glial Fibrillary Acidic Protein
Specificity:	Human GFAP
Localization:	Cytoplasm
Pre-treatment:	EZ-AR1
Manual/i6000:	HK546-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AN783-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN783-10M**
Xmatrx®	**AY783-YCD, AY783-50D**
NanoVip™®	**AY783-4M**
Concentrated:	**NU783-UC, NU783-5UC**
Recommended Positive Control:	**FG-783N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-783N (Xmatrx & NanoVip™)**

Glial Fibrillary Acidic Protein (GFAP) belongs to the class III of the intermediate filament proteins highly specific to astrocytes in the brain. It detects astrocytes, Schwann cells, satellite cells, enteric glial cells, and some groups of ependymal cells GFAP is used to differentiate astrocytoma from nonglial cell tumors.

GLUT 1



Tongue Squamous cell carcinoma tissue stained with Anti-GLUT1 using DAB Chromogen

Clone:	GLUT1/3132R
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human GLUT 1
Specificity:	GLUT 1
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ANC91-5M**
Ready-to-Use (Automated):	
***i*6000™**	**ANC91-10M**
Xmatrx®	**AYC91-YCD, AYC91-50D**
NanoVip™®	**AYC91-4M**
Concentrated:	**NUC91-UC, NUC91-5UC**
Recommended Positive Control:	**FG-C91N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C91N (Xmatrx & NanoVip™)**

GLUT1 is expressed in many human tissues including those of colon, lung, stomach, and breast. Overexpression of GLUT1 has been associated with tumour differentiation in breast, colon, mesothelioma, and endometrial carcinomas, whereas decreased GLUT1 function causes GLUT1 deficiency syndrome.

Glutamine Synthetase

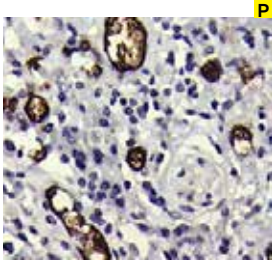
Testis tissue stained with Anti-Glutamine Synthetase using DAB Chromogen

Clone:	E-4
Isotype:	IgG2a
Source:	Mouse
Immunogen:	Human Glutamine Synthetase
Specificity:	Glutamine Synthetase
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB64-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB64-10M**
Xmatrx®	**AXB64-YCD, AXB64-50D**
NanoVip™®	**AXB64-4M**
Concentrated:	**MUB64-UC, MUB64-5UC**
Recommended Positive Control:	**FG-B64M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B64M (Xmatrx & NanoVip™)**

Glutamine Synthetase (Gl Syn) forms a homo octamer that is a catalyst for the amination of glutamic acid to glutamine. It is a marker for astrocytes that serve as the primary site of conversion of glutamic acid to glutamine in the brain. Elevated level expression of glutamine Synthetase in glial cells has shown to protect neurons from degeneration due to excess glutamate. Glutamine Synthetase is present in the Testis and is involved in nitrogen homeostasis. Over expression of glutamine Synthetase was seen in Testis carcinomas.

Glycophorin A



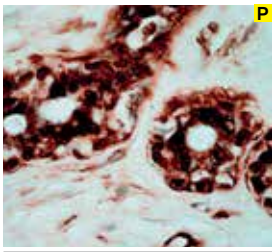
Salivary gland tissue stained with Anti-Glycophorin A using DAB Chromogen

Clone:	JC159
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human Glycophorin A
Specificity:	Glycophorin A
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB36-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB36-10M**
Xmatrx®	**AXB36-YCD, AXB36-50D**
NanoVip™®	**AXB36-4M**
Concentrated:	**MUB36-UC, MUB36-5UC**
Recommended Positive Control:	**FG-B36M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B36M (Xmatrx & NanoVip™)**

The Glycophorin A (GPA) is a single pass membrane sialoglycoprotein expressed across the mature erythrocytes and erythroid precursor cells. The sialic acid in glycophorin A contributes to the generation of a net negative surface charge that minimizes interactions between red blood cells and prevents aggregation. It is the carrier of blood group M and N specificities. Glycophorin A acts as a receptor for Sandei virus, parvovirus, and Hsa, and Streptococcus adhesion. Antiglycophorin A is used in identifying cells of the erythroid lineage.

Glutathione S-Transferase Pi (GST Pi)



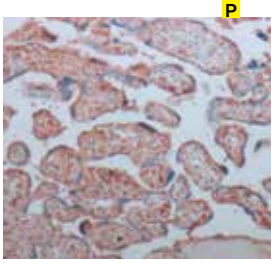
GST Pi positivity tissue in breast carcinoma stained with Anti-GST Pi using DAB chromogen

Clone:	Polyclonal
Source:	Rabbit
Immunogen:	Purified proteins from the cytosol of a human chronic lymphoblastic spleen
Specificity:	Glutathione S-transferase pi
Localization:	Nucleus & Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR249-5R**
Ready-to-Use (Automated):	
***i*6000™**	**AR249-10R**
Xmatrx®	**AW249-YCD, AW249-50D**
NanoVip™®	**AW249-4M**
Concentrated:	**PU249-UP, PU249-5UP**
Recommended Positive Control:	**FG-249P (Manual & i6000)**
Recommended Microchamber Slide:	**FB-249P (Xmatrx & NanoVip™)**

Glutathione S-Transferases (GSTs) are a multigene family of enzymes centrally involved with drug metabolism and detoxification. All eukaryotic species possess multiple cytosolic and membrane-bound GST isoenzymes, each of which displays distinct catalytic as well as noncatalytic binding properties.

Glycophorin A+B (E3)



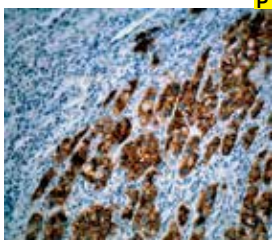
PLACENTA tissue stained with Anti-Glycophorin A+B (E3) using DAB chromogen

Clone:	E3
Isotype:	IgG
Source:	Mouse
Immunogen:	peptide corresponding to human Glycophorin A +B (N-terminal)
Specificity:	Human HIR2
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM889-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM889-10M**
Xmatrx®	**AX889-YCD, AX889-50D**
NanoVip™®	**AX889-4M**
Concentrated:	**MU889-UC, MU889-5UC**
Recommended Positive Control:	**FG-889M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-889M (Xmatrx & NanoVip™)**

Glycophorins A, B and C are sialoglycoproteins of the human erythrocytemembrane, which bear the antigenic determinants for the MN, Ss, andGerbic blood groups, respectively. Glycophorins span the membraneonce and present their amino-terminal end to the extracellular surface of the human erythrocyte. Glycophorin A + B antibody recognizes Nterminal,homologous portion of glycophorins A (GPA) and B (GPB),(strongly to GPA, and weakly to GPB). The antibody is useful in erythroid cell development studies, because HIR2 antigen is expressed on early erythroblasts, late erythroblasts, erythroblasts, mature erythrocytes and the cell of erythroid cell lines K562 and HEL, but not on all other cell(mature erythrocytes are characteristically CD235a positive and CD45 and CD71 negative). For research use only, not for use in diagnostic procedures.

Glypican-3 (GPC3)



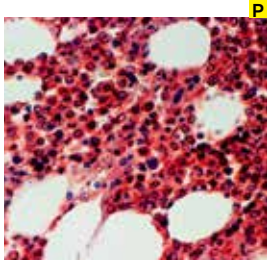
Hepatocellular carcinoma tissue stained with Anti-Glypican-3 using DAB chromogen

Clone:	GPC3-88
Isotype:	IgG1/K
Source:	Mouse
Immunogen:	Glypican-3 is a mouse monoclonal antibody derived from cell culture supernatant
Specificity:	Glypican
Localization:	Cytoplasm/Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM539-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM539-10M**
Xmatrx®	**AX539-YCD, AX539-50D**
NanoVip™®	**AX539-4M**
Concentrated:	**MU539-UC, MU539-5UC**
Recommended Positive Control:	**FG-539M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-539M (Xmatrx & NanoVip™)**

Glypican-3 (GPC3) is a glycosylphospatidyl inositol-anchored membrane protein, which may also be found in a secreted form. GPC3 belongs to the glypican family of heparan sulfate proteoglycans. This protein may be involved in the suppression/modulation of growth in the predominantly mesodermal tissues and organs. Glypican-3 is thought to regulate tissue and organ growth through interactions with growth factors such as insulin-like growth factor II or fibroblast growth factor 2. For research use only. Not for use in diagnostic procedures.

Granulocyte



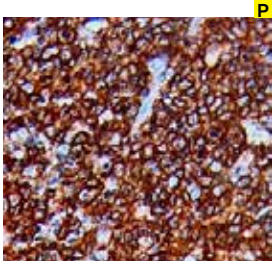
HODGKINS LYMPHOMA trephine tissue stained with Anti-Granulocyte using AEC chromogen

Clone:	BM-2
Isotype:	IgG1
Source:	Mouse
Immunogen:	Nuclei from pokeweed mitogen-stimulated human peripheral blood lymphocytes
Specificity:	Granulocytes
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM210-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM210-10M**
Xmatrx®	**AX210-YCD, AX210-50D**
NanoVip™®	**AX210-4M**
Concentrated:	**MU210-UC, MU210-5UC**
Recommended Positive Control:	**FG-210M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-210M (Xmatrx & NanoVip™)**

The BM-2 antibody can provide important differentiation information and may be used along with antibodies BM-1 and BM-3 to stain early precursor and mature forms of human myeloid cells. This group of monoclonal antibodies reacts with antigenic determinants present in normal myeloid cells and leukemias of similar derivation. BM-2 recognizes an antigen present in the cytoplasm of mature granulocytes. This antibody stains the cytoplasm of human granulocytes (polymorphonuclear leukocytes) residing in lymphoid and non-lymphoid tissue.

GM-CSF



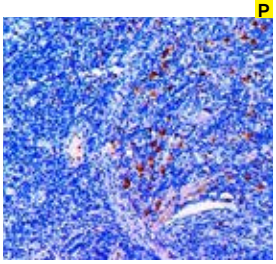
Tonsil tissue stained with Anti-GM-CSF using DAB Chromogen

Clone:	CSF2/3403
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Human GM-CSF
Specificity:	GM-CSF
Localization:	Extracellular/Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC56-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC56-10M**
Xmatrx®	**AXC56-YCD, AXC56-50D**
NanoVip™®	**AXC56-4M**
Concentrated:	**MUC56-UC, MUC56-5UC**
Recommended Positive Control:	**FG-C56M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C56M (Xmatrx & NanoVip™)**

GM-CSF (Granulocyte-Macrophage colony-stimulating factor) also known as colony stimulating factor 2 (CSF2), is a 14.6kDa monomeric hematopoietic growth factor secreted by macrophages, activated T-cells, B-cells, mast cells, NK cells, endothelial cells and fibroblasts. It is a pleiotropic cytokine that stimulates the growth and differentiation of granulocytes, macrophages, erythrocytes, early megakaryocytes and eosinophil from bone marrow progenitor cells. GM-CSF activates effector functions of myeloid cells, thereby linking adaptive and innate immunity and in turn may boost immune-independent tumor progression. GM-CSF also plays a vital role in immune regulation and hematopoiesis.

Granzyme B



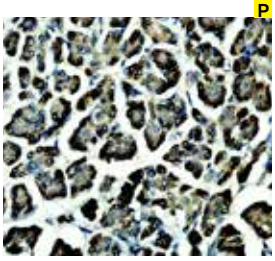
Spleen tissue stained with Anti-Granzyme B using DAB Chromogen

Clone:	GZMB/3014
Isotype:	IgG2b, kappa
Source:	Mouse
Immunogen:	Human Granzyme B
Specificity:	Granzyme B
Localization:	Cytoplasm
Pre-treatment:	AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB35-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB35-10M**
Xmatrx®	**AXB35-YCD, AXB35-50D**
NanoVip™®	**AXB35-4M**
Concentrated:	**MUB35-UC, MUB35-5UC**
Recommended Positive Control:	**FG-B35M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B35M (Xmatrx & NanoVip™)**

Granzyme B is a single chain and single domain serine protease. Its structure is folded into two six-stranded Beta-barrels, which are connected by three trans-domain segments. Granzyme B is one of the most common serine proteases present in the granules of Natural killer cells and cytotoxic T lymphocytes. Granzyme B is stored in secretory granules and secreted along with many other proteins such as perforin to induce apoptosis of harmful target cells such as allogeneic, virally infected and tumor cells. After being transported to the target cells, Granzyme B causes multiple cascades of activation and inactivation that ultimately leads to the apoptotic demise of the target cell. There is also some evidence that Granzyme B plays a role in moderating the immune response asides its apoptotic effects.

Glucagon



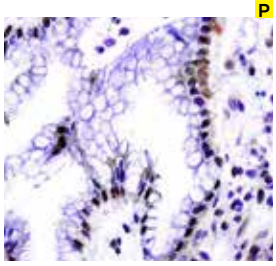
Pancreas tissue stained with Anti-Glucagon using DAB Chromogen

Clone:	C-11
Isotype:	IgG1, kappa
Source:	Mouse
Immunogen:	Human Glucagon
Specificity:	Glucagon
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD35-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD35-10M**
Xmatrx®	**AXD35-YCD, AXD35-50D**
NanoVip™®	**AXD35-4M**
Concentrated:	**MUD35-UC, MUD35-5UC**
Recommended Positive Control:	**FG-D35M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D35M (Xmatrx & NanoVip™)**

Glucagon is a 29-amino acid polypeptide hormone synthesized and secreted from alpha cells of the islets of Langerhans in the pancreas. It functions as an antagonist to Insulin by stimulating gluconeogenesis, glycogenolysis, lipolysis and ketogensis, leading to increased blood glucose levels. An elevated expression of glucagon is observed in pancreatic tumors such as glucagonoma and is used as an analytical tool in qualification of the hormone.

H. Pylori



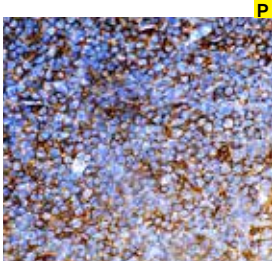
Stomach tissue stained with Anti-H.Pylori using DAB chromogen

Clone:	HPYL/7172
Isotype:	IgG2b, kappa
Source:	Mouse
Immunogen:	Human H. Pylori
Specificity:	H. Pylori
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD16-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD16-10M**
Xmatrx®	**AXD16-YCD, AXD16-50D**
NanoVip™®	**AXD16-4M**
Concentrated:	**MUD16-UC, MUD16-5UC**
Recommended Positive Control:	**FG-D16M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D16M (Xmatrx & NanoVip™)**

Helicobacter Pylori (H. Pylori) is a Gram-negative, microaerophilic, helix-shaped bacterium is known to cause peptic ulcers and chronic gastritis in human. It is present on the surface of the epithelium or in the cytoplasm of the epithelial cells of the antrum and body of the stomach. H.Pylori is strongly associated with duodenal ulcers and is also implicated in the development of adenocarcinoma and low grade lymphoma of mucosa associated lymphoid tissue in the stomach

HLA-DP/-DR



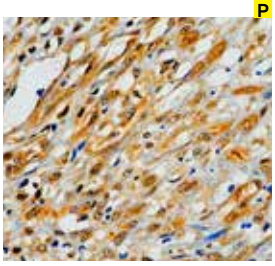
Lymphnode tissue stained with Anti-HLA-DP/-DR using DAB Chromogen

Clone:	Bra-14
Isotype:	IgG3, kappa
Source:	Mouse
Immunogen:	Human HLA-DP/-DR
Specificity:	HLA-DP/-DR
Localization:	Membrane
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD48-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD48-10M**
Xmatrx®	**AXD48-YCD, AXD48-50D**
NanoVip™®	**AXD48-4M**
Concentrated:	**MUD48-UC, MUD48-5UC**
Recommended Positive Control:	**FG-D48M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D48M (Xmatrx & NanoVip™)**

HLA-DP and HLA-DR are both part of the human major histocompatibility complex (MHC) class II category. These molecules play critical roles in the immune system by presenting antigens to CD4+ helper T cells, initiating immune responses. HLA-DP is composed of two subunits, DPα and DPβ, while HLA-DR consists of DRα and DRβ subunits. They are primarily expressed on antigen-presenting cells such as B lymphocytes, monocytes, macrophages, and dendritic cells. Genetic variations in HLA-DP and HLA-DR can influence an individual's susceptibility to various diseases and autoimmune conditions. HLA-DP and HLA-DR are vital in carcinoma diagnosis as they enable the immune system to recognize and respond to carcinoma-specific antigens, aiding in early detection and the development of targeted immunotherapies.

HSV 1



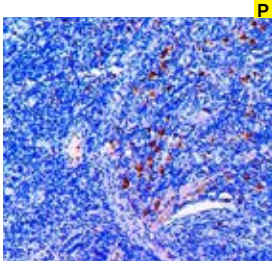
Cervical Carcinoma tissue stained with Anti-HSV1 using DAB Chromogen

Clone:	10A3
Isotype:	IgG1, kappa
Source:	Mouse
Immunogen:	Human HSV 1
Specificity:	HSV 1
Localization:	Cyt &/OR Nuc
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD51-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD51-10M**
Xmatrx®	**AXD51-YCD, AXD51-50D**
NanoVip™®	**AXD51-4M**
Concentrated:	**MUD51-UC, MUD51-5UC**
Recommended Positive Control:	**FG-D51M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D51M (Xmatrx & NanoVip™)**

Herpes simplex virus 1 (HSV-1) is a member of the Herpes viridae family with a double-stranded DNA genome inside an icosahedral capsid and a lipid envelope derived from the host's nuclear membrane. After the initial infection, HSV-1 goes latent in nerve cell bodies, periodically reactivating to cause herpetic sores, primarily affecting non-genital mucosal surfaces. HSV-1 is known for its viral gene expression during infection and shares a similar structure and latent capability with HSV-2. Both HSV-1 and HSV-2 have been linked to conditions like Alzheimer's disease

Granzyme B



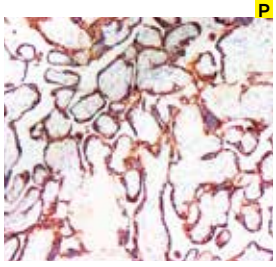
Spleen tissue stained with Anti-Granzyme B using DAB Chromogen

Clone:	2C5
Isotype:	IgG2a
Source:	Mouse
Immunogen:	Human Granzyme B
Specificity:	Granzyme B
Localization:	Mem & Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB35-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB35-10M**
Xmatrx®	**AXB35-YCD, AXB35-50D**
NanoVip™®	**AXB35-4M**
Concentrated:	**MUB35-UC, MUB35-5UC**
Recommended Positive Control:	**FG-B35M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B35M (Xmatrx & NanoVip™)**

Granzyme B is a member of the granzyme family of the serine proteases found specifically in the cytotoxic granules of cytotoxic T lymphocytes (CTL) and natural killer (NK) cells.They are synthesized, processed and released by exocytosis in lysosome-like granules containing perforin. Granzyme B has the strongest apoptotic activity of all the granzymes as a result of its caspase-like ability to cleave substrates at aspartic acid residues thereby activating procaspases directly and cleaving downstream caspase substrates.

HCGα



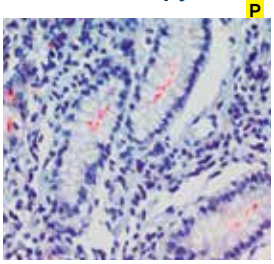
Placenta tissue stained with Anti-HCGα using DAB Chromogen

Clone:	HCGα/53
Isotype:	IgG1
Source:	Mouse
Immunogen:	Recombinant hCG alpha protein
Specificity:	HCGα
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM930-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AM930-10ME**
Xmatrx®	**AX930-YCDE, AX930-50DE**
NanoVip™®	**AX930-4ME**
Concentrated:	**MU930-UCE, MU930-5UCE**
Recommended Positive Control:	**FG-930ME (Manual & i6000)**
Recommended Microchamber Slide:	**FB-930ME(Xmatrx & NanoVip™)**

Human chorionic gonadotropin (HCG) is a glycoprotein secreted in large quantities by normal trophoblasts. It is present only in trace amounts in non-pregnant urine and sera but rises sharply during pregnancy. HCG is composed of two non-identical, non-covalently linked polypeptide chains designated as the α and β subunits. The α subunit is identical to that of thyroid stimulating hormone (TSH), follicle stimulating hormone (FSH), and luteinizing hormone (LH). Anti-HCGα reacts with a protein of aproximately13 kDa identified as α sub-unit of HCG.

Helicobacter pylori



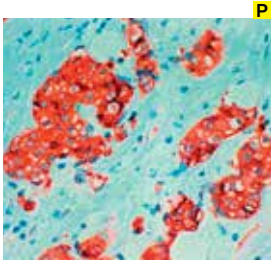
Stomach tissue stained with Anti-AMD16 using AEC chromogen

Clone:	ULC3R
Source:	Mouse
Immunogen:	Heat killed bacteria
Specificity:	Helicobacter pylori
Localization:	H. Pyloric
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM880-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AM880-10ME**
Xmatrx®	**AX880-YCDE, AX880-50DE**
NanoVip™®	**AX880-4ME**
Concentrated:	**MU880-UCE, MU880-5UCE**
Recommended Positive Control:	**FG-880ME (Manual & i6000)**
Recommended Microchamber Slide:	**FB-880ME(Xmatrx & NanoVip™)**

H. pylori is associated with B-type gastritis and some duodenal ulcers. Studies conducted by various researchers have shown that immunostaining for H. pylori with monoclonal antibodies is more reliable and easier to read than traditional H&E staining and significantly more sensitive than the WarthinStarry silver stain, which is very complicated to perform.

Heat Shock Protein 27 (HSP 27)



Breast carcinoma tissue stained with Anti-HSP27 using AEC chromogen

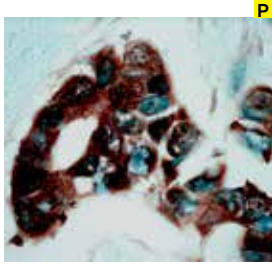
Clone:	G3.1
Isotype:	IgG1
Source:	Mouse
Immunogen:	Balb/c mice were immunized with "24K" protein isolated from the cytosol of MCF-7 cells. Spleen cells from immunized mice were fused with NS-1 myeloma cells
Specificity:	hsp27
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM171-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM171-10M**
Xmatrx®	**AX171-YCD, AX171-50D**
NanoVip™®	**AX171-4M**
Concentrated:	**MU171-UC, MU171-5UC**
Recommended Positive Control:	**FG-171M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-171M (Xmatrx & NanoVip™)**

HSP27 also known as the 24K estrogen-regulated protein or HSP28, is a small heat shock protein that has been shown to correlate with the expression of estrogen-receptors. Increased levels of HSP27 have been shown to correlate with the presence of ER and PR in human breast tumor biopsy samples. This antibody stains estrogen regulated heat shock protein (HSP27) in cytoplasm of cells in female reproductive tract.

Heat Shock Protein (HSP-70)

P



Breast carcinoma tissue stained with Anti-HSP 70 using DAB chromogen

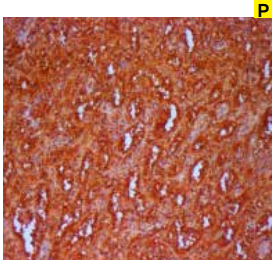
Clone:	BRM-22
Isotype:	IgG1
Source:	Mouse
Immunogen:	Bovine brain HSP70
Specificity:	Heat Shock Protein70 (HSP-70)
Localization:	Cytoplasm/NUCLEUS
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM289-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM289-10M**
Xmatrx®	**AX289-YCD, AX289-50D**
NanoVip™®	**AX289-4M**
Concentrated:	**MU289-UC, MU289-5UC**
Recommended Positive Control:	**FG-289M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-289M (Xmatrx & NanoVip™)**

HSP-70 is a member of a multigene family encoding several closely related 70-73 kD stress proteins (the HSP-70 family). These genes differ in their intracellular location and regulation and are thought to be involved in protein-protein interactions such as those of the protein products of the p53 tumor suppressor gene and the human c-myc oncogene. This antibody stains HSP-70 localized in the cytoplasm and/or nuclei in tissue from breast carcinoma, brain tumors, Alzheimer's disease and alcoholic liver disease.

Hemoglobin A

P



Spleen tissue stained with Anti-Hemoglobin A using FAST RED Chromogen

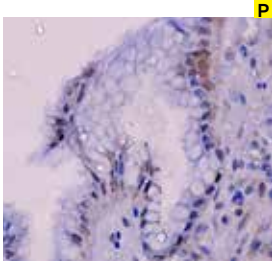
Clone:	EPR3608
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human Hemoglobin A
Specificity:	Hemoglobin A
Localization:	Mem/Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN977-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN977-10M**
Xmatrx®	**AY977-YCD, AY977-50D**
NanoVip™®	**AY977-4M**
Concentrated:	**NU977-UC, NU977-5UC**
Recommended Positive Control:	**FG-977N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-977N (Xmatrx & NanoVip™)**

The human alpha globin gene cluster located on chromosome 16 spans about 30 kb and includes seven loci: 5'- zeta – pseudozeta – mu – pseudoalpha-1 – alpha-2 – alpha-1 – theta – 3'. The alpha-2 (HBA2) and alpha-1 (HBA1) coding sequences are identical and only differ slightly over the 5' untranslated regions and the introns (although they differ significantly over the 3' untranslated regions). Two alpha chains plus two beta chains constitute HbA, which in normal adult life comprises about 97% of the total hemoglobin; alpha chains combine with delta chains to constitute HbA-2, which with HbF (fetal hemoglobin) makes up the remaining 3% of adult hemoglobin.

Helicobacter pylori

P



Stomach tissue stained with Anti-Helicobacter pylori using DAB chromogen

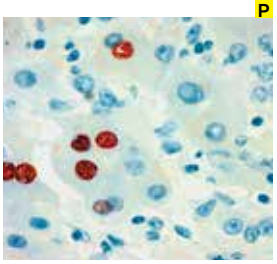
Clone:	HPYL/7172
Isotype:	IgG2b, kappa
Source:	Mouse
Immunogen:	Human Helicobacter pylori
Specificity:	Helicobacter pylori
Localization:	Cyt/H.pylori
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD16-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AMD16-10ME**
Xmatrx®	**AXD16-YCDE, AXD16-50DE**
NanoVip™®	**AXD16-4ME**
Concentrated:	**MUD16-UCE, MUD16-5UCE**
Recommended Positive Control:	**FG-D16ME (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D16ME(Xmatrx & NanoVip™)**

Helicobacter Pylori (H. Pylori) is a Gram-negative, microaerophilic, helix-shaped bacterium is known to cause peptic ulcers and chronic gastritis in human. It is present on the surface of the epithelium or in the cytoplasm of the epithelial cells of the antrum and body of the stomach. H.Pylori is strongly associated with duodenal ulcers and is also implicated in the development of adenocarcinoma and low grade lymphoma of mucosa associated lymphoid tissue in the stomach.

Hepatitis B Virus Core Antigen (HBcAg)

P



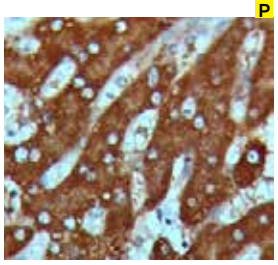
Liver tissue stained with Anti-HBcAg using AEC chromogen

Clone:	Polyclonal
Source:	Rabbit
Immunogen:	HBcAg purified from lysates of E. coli clones containing the viral core DNA
Specificity:	Hepatitis B core antigen
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR082-5RE**
Ready-to-Use (Automated):	
***i*6000™**	**AR082-10RE**
Xmatrx®	**AW082-YCDE, AW082-50DE**
NanoVip™®	**AW082-4ME**
Concentrated:	**PU082-UPE, PU082-5UPE**
Recommended Positive Control:	**FG-082PE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-082PE (Xmatrx & NanoVip™)**

HBcAg is the designation given to the antigenic activity of the 28 nm nucleocapsid core of Hepatitis B Virus. Immunocytochemical staining for HBcAg can provide conclusive evidence for a viral etiology in hepatitis. Furthermore, viral antigenic expression in liver cells can be correlated with the histopathologic changes, thus facilitating investigation into the mechanism of virus-induced injury. This antibody stains Hepatitis B Virus Core Antigen in nuclei of infected cells in tissue sections stained by immunohistochemical techniques

Hepatocyte Specific Antigen



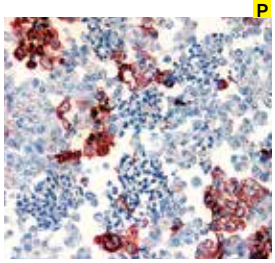
Liver tissue stained with Anti-HSA using DAB Chromogen

Clone:	OCH1E5
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human HSA
Specificity:	HSA
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC47-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC47-10M**
Xmatrx®	**AXC47-YCD, AXC47-50D**
NanoVip™®	**AXC47-4M**
Concentrated:	**MUC47-UC, MUC47-5UC**
Recommended Positive Control:	**FG-C47M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C47M (Xmatrx & NanoVip™)**

HSA is used in a panel with CEA (Carcinoembryonic Antigen), Glypican-3, CK7, AFP (Alpha Fetoprotein) and CD10 to aid in the differential diagnosis of hepatocellular carcinoma from cholangiocarcinoma, Hepatoblastomas and/or metastatic adenocarcinoma. Hepatocyte Specific Antigen is also rarely found in gastric carcinomas as well as in a few other non-hepatic tumors.

Herpes Simplex Virus Type II (HSV II)



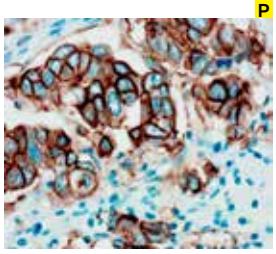
Cultured cells tissue stained with Anti-HSV II using DAB chromogen

Clone:	Polyclonal
Source:	Rabbit
Immunogen:	HSV type II (strain MS) infected whole rabbit cornea cells solubilized in detergent
Specificity:	Herpes simplex Virus (HSV) type II
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR085-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AR085-10RE**
Xmatrx®	**AW085-YCDE, AW085-50DE**
NanoVip™®	**AW085-4ME**
Concentrated:	**PU085-UPE, PU085-5UPE**
Recommended Positive Control:	**FG-085PE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-085PE (Xmatrx & NanoVip™)**

HSV II is the virus known for causing Herpes genitalis. The antibody reacts with all the major glycoproteins present in the viral envelope and at least one core protein as determined by crossed immunoelectrophoresis. It does not cross react with cytomegalovirus and Epstein-Barr virus.

c-erbB-2 (HER-2/neu)



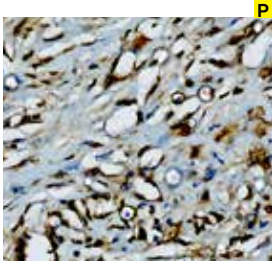
Breast tissue stained with Anti-Her2 using DAB chromogen

Clone:	EP3
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues surrounding tyrosine 877 of human HER2
Specificity:	Her2
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX031-YCD,HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN726-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AN726-10ME**
Xmatrx®	**AN726-YCDE, AN726-50DE**
NanoVip™®	**AN726-4ME**
Concentrated:	**NU726-UCE, NU726-5UCE**
Recommended Positive Control:	**FG-726NE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-726NE (Xmatrx & NanoVip™)**

HER2 (human epidermal growth factor receptor 2), also known as Neu, ErbB-2, CD340 (cluster of differentiation 340) or p185, is a protein that in humans is encoded by the ERBB2 gene. HER2 is a member of the epidermal growth factor receptor (EGFR/ErbB) family.

HHV-8



Kaposi's Sarcoma tissue stained with Anti-HHV-8 using DAB Chromogen

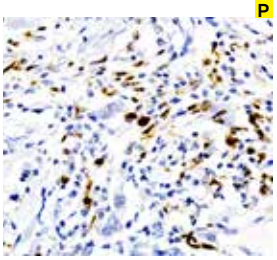
Clone:	HHV8/3606
Isotype:	IgG1, kappa
Source:	Mouse
Immunogen:	Human HHV-8
Specificity:	HHV-8
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD14-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD14-10M**
Xmatrx®	**AXD14-YCD, AXD14-50D**
NanoVip™®	**AXD14-4M**
Concentrated:	**MUD14-UC, MUD14-5UC**
Recommended Positive Control:	**FG-D14M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D14M (Xmatrx & NanoVip™)**

HHV-8, also designated as Lana1 or ORF73, is the eighth human herpes virus which is likely to be the etiological agent of Kaposi sarcoma (KS). It is a multifunctional protein that plays a role in the replication and long-term persistence of the viral episomal genome in dividing cells. HHV-8 labels the latent nuclear antigen protein (LNA), which is the product of the viral gene ORF 73. HHV-8 has been found to be associated with three different diseases observed in AIDS patients, multicentric Castleman's disease, kaposi's sarcoma and primary effusion lymphoma (which is a rare type of non-Hodgkin lymphoma affecting the body cavities).

HIF-1-ALPHA

P



Breast Carcinoma tissue stained with Anti-HIF-1 ALPHA using DAB Chromogen

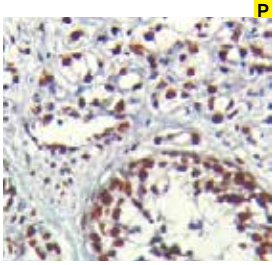
Clone:	EP118
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human HIF-1-ALPHA
Specificity:	HIF-1-ALPHA
Localization:	Nuc/Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ANB27-5M**
Ready-to-Use (Automated):	
***i*6000™**	**ANB27-10M**
Xmatrx®	**AYB27-YCD, AYB27-50D**
NanoVip™®	**AYB27-4M**
Concentrated:	**NUB27-UC, NUB27-5UC**
Recommended Positive Control:	**FG-B27N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B27N (Xmatrx & NanoVip™)**

Hypoxia-inducible factor 1-alpha is known as HIF-1-alpha a protein that in humans is encoded by the HIF1A gene. HIF-1shows to activate hypoxia-responsive genes that are involved in multiple aspects of tumorigenesis and carcinoma progressionwhich also includes proliferation, metabolism, angiogenesis, invasion, metastasis and therapy resistance. It also plays animportant role in cellular and systemic responses to hypoxia. Hypoxia has been clinically demonstrated to predict an adverse treatment outcome in radio therapeutic management of carcinoma of the head and neck, uterine cervix and soft tissue sarcomas. HIF-1 alpha antibody may be used in analyzing the carcinoma cell response to therapy.

Histone H3

P



Prostate Carcinoma tissue stained with Anti-Histone H3 using DAB Chromogen

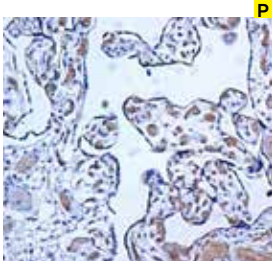
Clone:	1G1
Isotype:	IgG
Source:	Mouse
Immunogen:	Human Histone H3
Specificity:	Histone H3
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB82-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB82-10M**
Xmatrx®	**AXB82-YCD, AXB82-50D**
NanoVip™®	**AXB82-4M**
Concentrated:	**MUB82-UC, MUB82-5UC**
Recommended Positive Control:	**FG-B82M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B82M (Xmatrx & NanoVip™)**

Histone H3 (also known as Histone H3.1t, H3/t, H3t, or H3/g) encoded by the gene HIST3H3/H3Ft, is one of the nuclear proteins responsible for the nucleosome structure of the chromosomal fiber in eukaryotes. They play a crucial role in transcription regulation, DNA repair, DNA replication and chromosomal stability. Acetylation and or methylation of Histone H3 occur in response to various stimuli and have a direct effect on the accessibility of chromatin to transcription factors and, therefore, gene expression. Hence, Histone H3 has been linked to various types of carcinoma as a biomarker through the aberrant expression of histone deacetylase (HDAC) enzymes and changes to chromatins

HIF-1-ALPHA

P



Lung stained tissue with Anti-HIF-1 ALPHA using DAB Chromogen

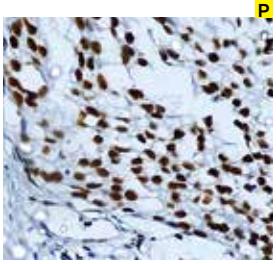
Clone:	Polyclonal
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human HIF-2-ALPHA
Specificity:	HIF-2-ALPHA
Localization:	Mem/Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ARB28-5R**
Ready-to-Use (Automated):	
***i*6000™**	**ARB28-10R**
Xmatrx®	**AWB28-YCD, AWB28-50D**
NanoVip™®	**AWB28-4M**
Concentrated:	**PUB28-UP, PUB28-5UP**
Recommended Positive Control:	**FG-B28P (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B28P (Xmatrx & NanoVip™)**

HIF-2-alpha (also known as EPAS1) is a transcription factor involved in the induction of genes regulated by oxygen. It shares 48% sequence identity with HIF1-alpha (HIF1A). Like HIF1A, HIF-2-alpha regulates gene expression in response to hypoxia. It also regulates the vascular endothelial growth factor (VEGF) expression and seems to be implicated in the development of blood vessels and the tubular system of the lungs. HIF2A is expressed at relatively higher levels in villus sections of placenta and in lung samples.

Histone H3

P



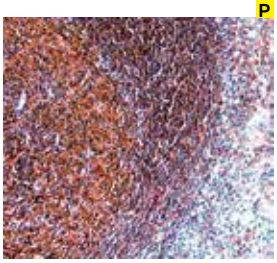
Tonsil tissue stained with Anti-Histone H3 using DAB Chromogen

Clone:	PHH3/471R
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human Histone H3
Specificity:	Histone H3
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ANB88-5M**
Ready-to-Use (Automated):	
***i*6000™**	**ANB88-10M**
Xmatrx®	**AYB88-YCD, AYB88-50D**
NanoVip™®	**AYB88-4M**
Concentrated:	**NUB88-UC, NUB88-5UC**
Recommended Positive Control:	**FG-B88N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B88N (Xmatrx & NanoVip™)**

Histone H3 (also known as Histone H3.1t, H3/t, H3t, or H3/g) encoded by the gene HIST3H3/H3Ft, is one of the nuclear proteins responsible for the nucleosome structure of the chromosomal fiber in eukaryotes. They play a crucial role in transcription regulation, DNA repair, DNA replication and chromosomal stability. Acetylation and or methylation of Histone H3 occur in response to various stimuli and have a direct effect on the accessibility of chromatin to transcription factors and, therefore, gene expression. Hence, Histone H3 has been linked to various types of carcinoma as a biomarker through the aberrant expression of histone deacetylase (HDAC) enzymes and changes to chromatins.

HLA-DR



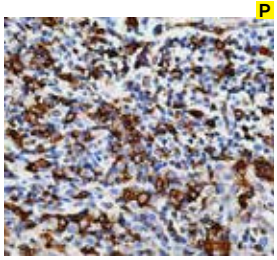
Tonsil tissue stained with Anti-HLADR using DAB chromogen

Clone:	LN3
Isotype:	IgG2a
Source:	Mouse
Immunogen:	Activated human peripheral blood mononuclear cells
Specificity:	LN3
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM154-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AM154-10ME**
Xmatrx®	**AX154-YCDE, AX154-50DE**
NanoVip™®	**AX154-4ME**
Concentrated:	**MU154-UCE, MU154-5UCE**
Recommended Positive Control:	**FG-154ME (Manual & i6000)**
Recommended Microchamber Slide:	**FB-154ME(Xmatrx & NanoVip™)**

HLA-DR is a transmembrane glycoprotein composed of an alpha chain (36 kD) and a beta chain (27 kD). LN3 is reactive with a non-polymorphic antigen of the HLA-DR (Ia) region, expressed primarily by antigen presenting cells, B-cells of the germinal centers and mantle zones, and additionally by monocytes, macrophages and interdigitating histiocytes. LN3 will produce medium intensity staining on B lymphocytes of germinal centers and mantle zones, and high intensity staining of interdigitating histiocytes in T-cell zones. This antibody stains the HLA-DR antigen in membrane of positive cells.

HLA-DR/DP/DQ/DX



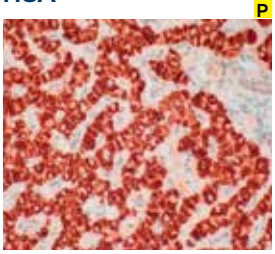
Lymph Node tissue stained with Anti-HLA-DR/DP/DQ/DX using DAB Chromogen

Clone:	CR3/43
Isotype:	IgG1, Kappa
Source:	Mouse
Immunogen:	Human HLA-DR/DP/DQ/DX
Specificity:	HLA-DR/DP/DQ/DX
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB53-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB53-10M**
Xmatrx®	**AXB53-YCD, AXB53-50D**
NanoVip™®	**AXB53-4M**
Concentrated:	**MUB53-UC, MUB53-5UC**
Recommended Positive Control:	**FG-B53M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B53M (Xmatrx & NanoVip™)**

HLA-DR/DP/DQ/DX antibody (also designated HLA class II HLADR / HLADP / HLADQ / HLADX antibody is a major histocompatibility complex (MHC) class II heterodimer cell surface receptor antibody. The major histocompatibility complex (MHC) is a large genomic region that has an important in the immune response to infections. The MHC class II molecules bind intracellularly processed peptides and present them to T-helper cells. These are expressed primarily on antigen presenting cells such as B lymphocytes, monocytes, macrophages, and thymic epithelial cells and are also present on activated T lymphocytes.

HSA



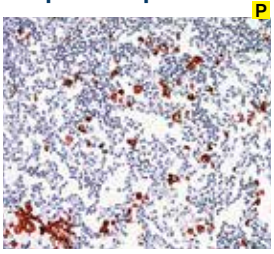
Liver tissue stained with Anti-HSA using DAB as a chromogen

Clone:	HSA/E8
Isotype:	IgG1/K
Source:	Mouse
Immunogen:	Human HSA
Specificity:	HSA
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM550-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM550-10M**
Xmatrx®	**AX550-YCD, AX550-50D**
NanoVip™®	**AX550-4M**
Concentrated:	**MU550-UC, MU550-5UC**
Recommended Positive Control:	**FG-550M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-550M (Xmatrx & NanoVip™)**

Hepatocyte Specific Antigen (HSA) has been demonstrated consistently in the vast majority of hepatocellular carcinomas. HSA recognizes both benign and malignant liver derived tissues including such tumors as hepatoblastoma, Hepatocellular carcinoma, and hepatic adenoma. It recognizes both normal adult and fetal liver tissue. This antibody is useful in differentiating hepatocellular carcinomas with adenoid features from adenocarcinomas, either primary in the liver or metastatic lesions to the liver. In recognizing hepatoblastoma, it is useful in differentiating this entity from other small round cell tumors.

Herpes Simplex Virus Type I (HSV I)



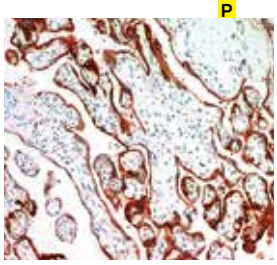
Infected lung tissue stained with Anti-HSV I using AEC chromogen

Clone:	Polyclonal
Source:	Rabbit
Immunogen:	Rabbit cornea cells infected with the MacIntyre strain of HSV type I and solubilized in detergent
Specificity:	Herpes Simplex Virus (HSV) type I
Localization:	Nuclear
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR084-5RE**
Ready-to-Use (Automated):	
***i*6000™**	**AR084-10RE**
Xmatrx®	**AW084-YCDE, AW084-50DE**
NanoVip™®	**AW084-4ME**
Concentrated:	**PU084-UPE, PU084-5UPE**
Recommended Positive Control:	**FG-084PE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-084PE (Xmatrx & NanoVip™)**

Human herpes simplex virus type I (HSV-I) is part of the herpesvirus family which also includes HSV-II, Epstein-Barr virus (mononucleosis), herpes zoster (chicken pox) and cytomegalovirus. They grow in the cell nuclei, bud through the nuclear membrane and cause latent infections. There is a significant degree of cross-reactivity between HSV-I and HSV-II. No cross-reactivity is seen with the Epstein-Barr virus, cytomegalovirus or herpes zoster virus.

Human Chorionic Gonadotropin (hCG) Beta



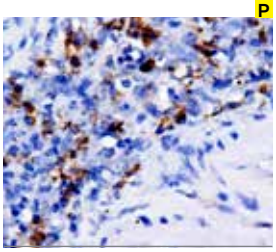
Placenta tissue stained with Anti-hCG beta using DAB chromogen

Clone:	M94138
Isotype:	IgG
Source:	Mouse
Immunogen:	Purified hCG Beta-subunit
Specificity:	Beta-hCG
Localization:	Cytoplasm
Pre-treatment:	EZ-AR1
Manual/i6000:	HK521-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AM395-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM395-10M**
Xmatrx®	**AX395-YCD, AX395-50D**
NanoVip™®	**AX395-4M**
Concentrated:	**MU395-UC, MU395-5UC**
Recommended Positive Control:	**FG-395M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-395M (Xmatrx & NanoVip™)**

Human Chorionic Gonadotropin (hCG) is a 40 kD glycoprotein secreted in large quantities by the placenta and normally circulates at readily detectable levels only during gestation. Immunohistochemical studies reveal localization of hCG in syncytiotrophoblasts. Isolated clusters of giant cells may be found in association with certain components of germ cell tumors but are most frequently associated with embryonic carcinoma, endodermal sinus tumor, and germinoma. This antibody stains the cytoplasm of positive cells.

IDO



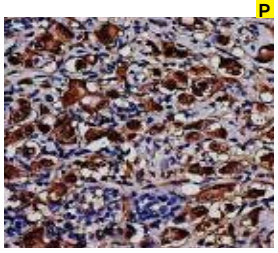
Tonsil and spleen tissue stained with Anti-IDO using DAB chromogen

Clone:	4D2
Isotype:	IgG
Source:	Mouse
Immunogen:	Human IDO
Specificity:	IDO
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM916-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AM916-10ME**
Xmatrx®	**AX916-YCDE, AX916-50DE**
NanoVip™®	**AX916-4ME**
Concentrated:	**MU916-UCE, MU916-5UCE**
Recommended Positive Control:	**FG-916ME (Manual & i6000)**
Recommended Microchamber Slide:	**FB-916ME (Xmatrx & NanoVip™)**

IDO/INDO(Indoleamine-pyrrole 2, 3 - dioxygenase) is a heme-containing intracellular enzyme?that in humans is encoded by the IDO1gene. IDO is the first and rate-limiting enzyme of tryptophan catabolism through kynurenine pathway, thus causing depletion of tryptophan which can cause halted growth of microbes as well as T-cells. It has been shown that IDO permits tumor cells to escape the immune system by depletion of L-Trp in the microenvironment of cells.

IDH1



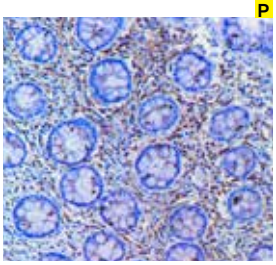
Placenta tissue stained with Anti-Factor XIIIa IHC using DAB chromogen

Clone:	IDH1/1152
Isotype:	IgG1, kappa
Source:	Mouse
Immunogen:	HepG2, HeLa, HT29 or MCF7 cells. Breast, Colon or Prostate Carcinoma
Specificity:	IDH1
Localization:	Cytoplasm/Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA22-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA22-10M**
Xmatrx®	**AXA22-YCD, AXA22-50D**
NanoVip™®	**AXA22-4M**
Concentrated:	**MUA22-UC, MUA22-5UC**
Recommended Positive Control:	**FG-A22M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A22M (Xmatrx & NanoVip™)**

This antibody identifies a 45kDa protein, which is recognized as isocitrate dehydrogenase (IDH1). It resides to the isocitrate and isopropylmalate dehydrogenases family. Isocitrate dehydrogenase 1 converts a compound called isocitrate to another compound called 2-ketoglutarate in both cytoplasm and peroxisomes. This reaction also release a molecule called NADPH, which is required for other cellular processes. The NADPH produced from isocitrate dehydrogenase 1 is required in the breakdown of fats for energy, and it also safeguard cells from harmful molecules called reactive oxygen species. Recently, an inactivating mutation of IDH1 has been involved in glioblastoma. IDH1 emerges to function as a tumor suppressor that, when inactivated, contributes to tumorigenesis in part through activation of the HIF-1 pathway.

IgA



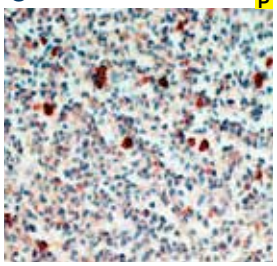
Colon tissue stained with Anti-IGA using DAB Chromogen

Clone:	IA761
Isotype:	IgG1, kappa
Source:	Mouse
Immunogen:	Human IGA
Specificity:	IGA
Localization:	Mem/Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA03-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA03-10M**
Xmatrx®	**AXA03-YCD, AXA03-50D**
NanoVip™®	**AXA03-4M**
Concentrated:	**MUA03-UC, MUA03-5UC**
Recommended Positive Control:	**FG-A03M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A03M (Xmatrx & NanoVip™)**

IgA is the most abundantly produced and secreted immunoglobulin in mucosal secretions. It is the main immunoglobulin found in mucous secretions such as tears, saliva, sweat, colostrums and secretions in the genitourinary and gastrointestinal tract. Structurally, IgA exists in two forms depending on its location in the body. Monomeric IgA is usually found in the serum which compromises of two heavy and two light chains. The light chains are similar to the other immunoglobulins. The secretory IgA is prevalent in the polymeric form of IgA. The polymeric IgA usually exists as dimers but tetramers have also been observed.

IgD



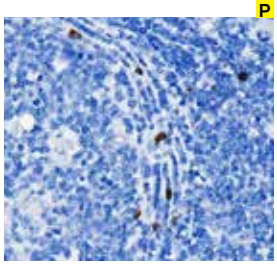
Tonsil tissue stained with Anti-IgD using AEC chromogen

Clone:	Polyclonal
Source:	Rabbit
Immunogen:	IgD isolated from a pool of normal human sera
Specificity:	Human IgD
Localization:	Membrane & Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ARAR440-5R**
Ready-to-Use (Automated):	
***i*6000™**	**ARAR440-10R**
Xmatrx®	**AWAR440-YCD, AWAR440-50D**
NanoVip™®	**AWAR440-4M**
Concentrated:	**PUAR440-UP, PUAR440-5UP**
Recommended Positive Control:	**FG-AR440P (Manual & i6000)**
Recommended Microchamber Slide:	**FB-AR440P (Xmatrx & NanoVip™)**

IgD is expressed on mature B cells and may be used to classify B cell neoplasms. Mantle zone B-cells in primary follicles and those outlining the germinal centers of secondary follicles are seen to be positive for IgD expression. Thus, this antibody could be used to detect changes in nodal architecture. It also may be used to detect the expanded follicular structures of progressive transformation of germinal center (PTGC), which are composed largely of IgD+ mantle zone B-cells. It is used along with IgM as a marker to identify marginal zone lymphomas.

IgG4



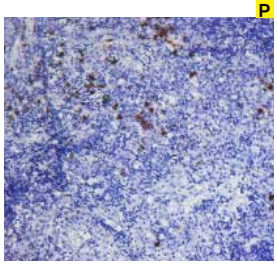
Tonsil tissue stained with Anti-IgG4 using DAB Chromogen

Clone:	IGHG4/2042R
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human IgG4
Specificity:	IgG4
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ANB75-5M**
Ready-to-Use (Automated):	
***i*6000™**	**ANB75-10M**
Xmatrx®	**AYB75-YCD, AYB75-50D**
NanoVip™®	**AYB75-4M**
Concentrated:	**NUB75-UC, NUB75-5UC**
Recommended Positive Control:	**FG-B75N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B75N (Xmatrx & NanoVip™)**

IgG4 (Immunoglobulin G4) is rare subclass and constitutes to only 3-4% of human IgG in serum. It is a dynamic antibody which has unique biological ability to undergo Fab-arm exchange and limit immune complex formation. IgG4 acts as a blocking antibody in allergy which helps in inhibiting mast cell degranulation, but plays a deleterious role in malignant melanoma, by impeding IgG1-mediated anti-tumor immunity. The over expression of IgG4 is seen in inflammatory pseudotumor (IPT) and under expressed in inflammatory myofibroblastic tumor (IMT). There are an increased number of IgG4+ plasma cells in pulmonary nodular lymphoid hyperplasia (PNLH).

IgG



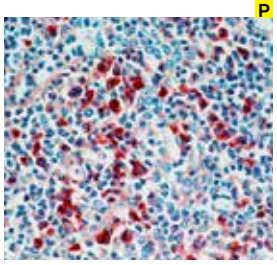
Tonsil tissue stained with ANTI-IgG using DAB Chromogen

Clone:	RWP49
Isotype:	IgG1, kappa
Source:	Mouse
Immunogen:	Human IgG
Specificity:	IgG
Localization:	Mem/Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB23-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB23-10M**
Xmatrx®	**AXB23-YCD, AXB23-50D**
NanoVip™®	**AXB23-4M**
Concentrated:	**MUB23-UC, MUB23-5UC**
Recommended Positive Control:	**FG-B23M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B23M (Xmatrx & NanoVip™)**

The molecular weight of IgG is 150,000. It consists of two gamma heavy chains and two kappa or lambda light chains. Immunohistochemical techniques have been used to identify immunoglobulins in the classification of leukemias, plasmacytomas, and certain non-Hodgkin?s lymphomas. In addition, immunoglobulin immunohistochemistry has been widely used in nephropathology and dermatopathology for studying a variety of immune diseases. The patterns of reactivity to IgG, IgA, IgM, C3, kappa, and lambda light chains can be used for the characterization of certain kinds of kidney and skin diseases.

IgG



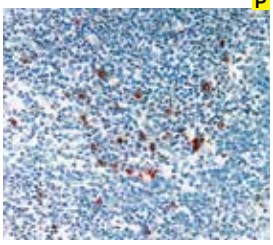
Tonsil tissue stained with ANTI-IgG using DAB Chromogen

Clone:	Polyclonal
Isotype:	NA
Source:	Rabbit
Immunogen:	Human IgG
Specificity:	IgG
Localization:	Mem/Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR050-5R**
Ready-to-Use (Automated):	
***i*6000™**	**AR050-10R**
Xmatrx®	**AW440-YCD, AW440-50D**
NanoVip™®	**AW440-4M**
Concentrated:	**PU440-UP, PU440-5UP**
Recommended Positive Control:	**FG-440P (Manual & i6000)**
Recommended Microchamber Slide:	**FB-440P (Xmatrx & NanoVip™)**

The human B-lymphocyte is characterized by the presence of readily detectable surface immunoglobulins. Upto 10 percent of peripheral blood lymphocytes and 68-70 percent of the lymphocytes in lymph nodes are of the B-cell type. When stimulated by antigen and aided by T-helper lymphocytes, Bcells differentiate into plasma cells which are the primary antibody-producing cells. The molecular weight of IgG is 150,000 consisting of two gamma heavy chains and two kappa or lambda light chains. It has been used in the classification of leukemias, plasmacytomas and certain non-Hodgkin's lymphomas.

IgM



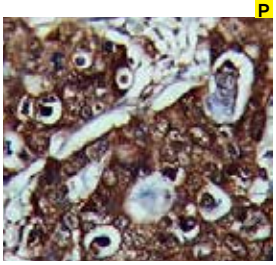
Tonsil tissue stained with Anti-IgM using DAB chromogen

Clone:	IgM88
Isotype:	IgG 2b Kappa
Source:	Mouse
Immunogen:	Purified human IgM
Specificity:	IgM
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM366-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM366-10M**
Xmatrx®	**AX366-YCD, AX366-50D**
NanoVip™®	**AX366-4M**
Concentrated:	**MU366-UC, MU366-5UC**
Recommended Positive Control:	**FG-366M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-366M (Xmatrx & NanoVip™)**

This monoclonal antibody reacts with human IgM heavy (mu) chain Fc region of 900kD pentameric IgM. It does not react with IgA, IgG or with light chains. This antibody stains plasma cells containing IgM, but does not usually stain immune complexes and surface IgM. It is useful for the evaluation of leukemias, plasmacytomas, and certain non-Hodgkin's lymphomas, the majority of which derive from B-cell lineage. The common underlying feature of these malignancies is the restricted expression of heavy and light chains to a single heavy and light chain type.

Interleukin-1beta



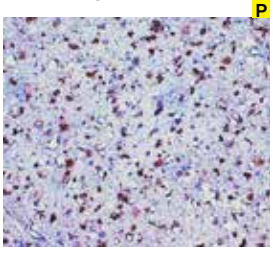
Colon carcinoma tissue stained with Anti-Interleukin-1beta using DAB Chromogen

Clone:	IL1B/3993
Isotype:	IgG2b, kappa
Source:	Mouse
Immunogen:	Human Interleukin-1beta
Specificity:	Interleukin-1beta
Localization:	Cyt & Ext
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC52-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC52-10M**
Xmatrx®	**AXC52-YCD, AXC52-50D**
NanoVip™®	**AXC52-4M**
Concentrated:	**MUC52-UC, MUC52-5UC**
Recommended Positive Control:	**FG-C52M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C52M (Xmatrx & NanoVip™)**

IL-1 beta is synthesized as a 31 kDa inactive pro-form and is further cleaved by caspase-1 to yield a 17 kDa mature form. Elevated levels of IL-1 beta have been associated with many chronic inflammatory conditions including sepsis, rheumatoid arthritis, inflammatory bowel disease, acute and chronic myelogenous leukemia, insulin-dependent diabetes mellitus, atherosclerosis, neuronal injury, and aging-related disease.

IDH1 R132H



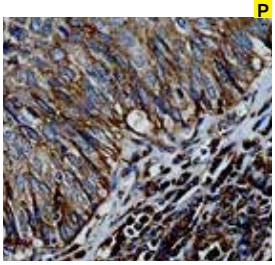
Acute Myeloid leukemia tissue stained with ANTI- IDH1 R132H using DAB chromogen

Clone:	MRQ-67
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human IDH1 R132H
Specificity:	IDH1 R132H
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AND64-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AND64-10M**
Xmatrx®	**AYD64-YCD, AYD64-50D**
NanoVip™®	**AYD64-4M**
Concentrated:	**NUD64-UC, NUD64-5UC**
Recommended Positive Control:	**FG-D64N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D64N (Xmatrx & NanoVip™)**

IDH1 (Isocitrate Dehydrogenase 1), a cytosolic enzyme in the Krebs citric acid cycle, exhibits the R132H mutation often seen in astrocytomas and oligodendroglial tumors, correlating with improved patient outcomes. This mutation causes abnormal IDH1 activity and the production of oncometabolite 2-hydroxyglutarate, promoting glioma formation and progression. IDH1 R132H aids in diagnosing different glioma grades and serves as a prognostic marker for gliomas and secondary glioblastoma multiforme, contributing to refining the molecular classification of adult gliomas when combined with other markers.

IL-15



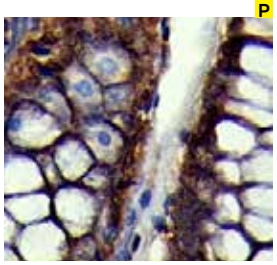
Placenta tissue stained with Anti-IL-15 using DAB Chromogen

Clone:	IL15/7048R
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human IL-15
Specificity:	IL-15
Localization:	Ext, Cyt and Nuc
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ANC97-5M**
Ready-to-Use (Automated):	
***i*6000™**	**ANC97-10M**
Xmatrx®	**AYC97-YCD, AYC97-50D**
NanoVip™®	**AYC97-4M**
Concentrated:	**NUC97-UC, NUC97-5UC**
Recommended Positive Control:	**FG-C97N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C97N (Xmatrx & NanoVip™)**

Interleukin-15 (IL-15) also designated IL-T, is a 14 kDa cloned cytokine that regulates T and natural killer cell activation and proliferation. It shares several biological activities with IL-2 and induces IL-2-like effects in lymphocyte development and homeostasis. IL-15 is produced by dendritic cells, epithelial cells, human stromal cell line (IMTLH), fibroblasts, and monocytes. IL-15 is a widely expressed pro-inflammatory cytokine which plays an important role in the activation of a number of important intracellular signaling molecules during immune responses and associated with several inflammatory disorders, including rheumatoid arthritis, pulmonary inflammatory diseases and psoriasis.

IL-1a



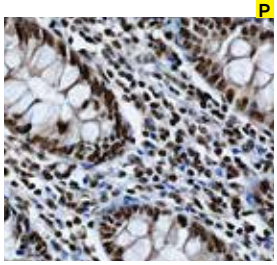
Colon tissue stained with Anti-IL-1a using DAB Chromogen

Clone:	IL1A/3981
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Human Anti-IL-1a
Specificity:	Human Anti-IL-1a
Localization:	Cyt & Mem
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA98-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA98-10M**
Xmatrx®	**AXA98-YCD, AXA98-50D**
NanoVip™®	**AXA98-4M**
Concentrated:	**MUA98-UC, MUA98-5UC**
Recommended Positive Control:	**FG-A98M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A98M (Xmatrx & NanoVip™)**

There are two forms of interleukin-1 exists and designated as IL1? and IL-1?. Interleukin 1? (IL-1?) and IL-1? are equally potent inflammatory cytokines that activate the inflammatory process, and their deregulated signaling causes devastating diseases manifested by severe acute or chronic inflammation. Although much attention has been given to understanding the biogenesis of IL-1?, the biogenesis of IL-1? and its distinctive role in the inflammatory process remain poorly defined. IL-1 plays a critical role in the regulation of immune response and inflammation, acting as an activator of T and B lymphocytes and natural killer (NK) cells.

IL-2



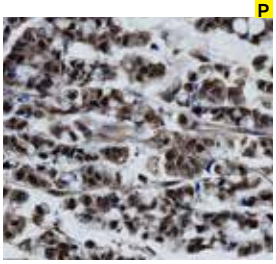
Tonsil tissue stained with Anti-IL-2 using DAB Chromogen

Clone:	IL2/3949
Isotype:	IgG2a, kappa
Source:	Mouse
Immunogen:	Human IL-2
Specificity:	IL-2
Localization:	Ext, Nuc & Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC96-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC96-10M**
Xmatrx®	**AXC96-YCD, AXC96-50D**
NanoVip™®	**AXC96-4M**
Concentrated:	**MUC96-UC, MUC96-5UC**
Recommended Positive Control:	**FG-C96M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C96M (Xmatrx & NanoVip™)**

Histone H3 (also known as Histone H3.1t, H3/t, H3t, or H3/g) encoded by the gene HIST3H3/H3Ft, is one of the nuclear proteins responsible for the nucleosome structure of the chromosomal fiber in eukaryotes. They play a crucial role in transcription regulation, DNA repair, DNA replication and chromosomal stability. Acetylation and or methylation of Histone H3 occur in response to various stimuli and have a direct effect on the accessibility of chromatin to transcription factors and, therefore, gene expression. Hence, Histone H3 has been linked to various types of carcinoma as a biomarker through the aberrant expression of histone deacetylase (HDAC) enzymes and changes to chromatins

IL-3



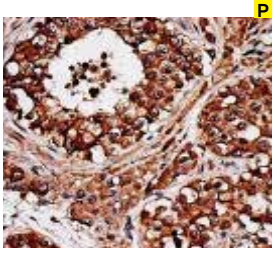
Tonsil tissue stained with Anti-IL-3 using DAB Chromogen

Clone:	IL3/4004
Isotype:	IgG1, kappa
Source:	Mouse
Immunogen:	Human IL-3
Specificity:	IL-3
Localization:	Ext, Cyt & Nuc
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC98-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC98-10M**
Xmatrx®	**AXC98-YCD, AXC98-50D**
NanoVip™®	**AXC98-4M**
Concentrated:	**MUC98-UC, MUC98-5UC**
Recommended Positive Control:	**FG-C98M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C98M (Xmatrx & NanoVip™)**

Interleukin 3 (IL-3), also called Mast Cell Growth Factor (MCGF), Multi-Colony Stimulating Factor (multi-CSF), or Eosinophil-CSF (E-CSF), is a pleiotropic cytokine that is primarily produced by activated T cells, mast cells and eosinophils. It stimulates the proliferation and differentiation of pluripotent hematopoietic stem cells as well as various lineage committed progenitors. IL3 supports the formation of multilineage colonies of macrophages, neutrophils, mast cells, and megakaryocytes from agar-suspended bone marrow cells and is involved in a variety of cell activities such as cell growth, differentiation and apoptosis. IL-3 also induces neurotrophic activity, and may be associated with neurologic disorders.

Inhibin, alpha (INHA)



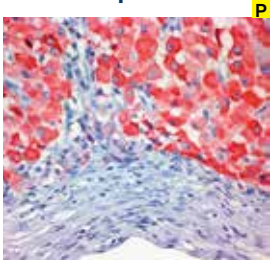
Testis tissue stained with Anti-Inhibin, alpha IHC using DAB chromogen

Clone:	INHA/4265
Isotype:	IgG2a
Source:	Mouse
Immunogen:	A synthetic peptide (around aa 73-96) of α-subunit of human inhibin A protein
Specificity:	Inhibin, alpha
Localization:	Cytoplasm/Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA12-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA12-10M**
Xmatrx®	**AXA12-YCD, AXA12-50D**
NanoVip™®	**AXA12-4M**
Concentrated:	**MUA12-UC, MUA12-5UC**
Recommended Positive Control:	**FG-A12M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A12M (Xmatrx & NanoVip™)**

Inhibins are dimeric gonadal protein hormones that negatively regulate pituitary FSH synthesis and secretion. Inhibin contains an alpha and beta subunit linked by disulfide bonds . Inhibin B is comprised of the Inhibin alpha subunit disulfide linked to the Inhibin beta subunit. Inhibin B is produced by testicular Sertoli cells and is the primary circulating form of Inhibin in most adult male mammals. Initial studies indicated that Inhibin is a critical negative regulator of gonadal stromal cell proliferation and was the first secreted protein identified to have tumor-suppressor activity. Inhibin alpha-subunit immunoreactivity has been detected in Sertoli cells, spermatocytes and in some Leydig cells.

Inhibin Alpha



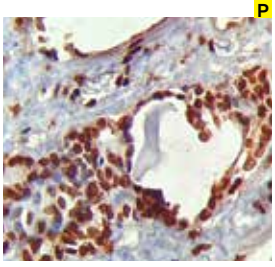
Ovary tissue stained with Anti-Inhibin Alpha using DAB chromogen

Clone:	R1
Isotype:	IgG2a
Source:	Mouse
Immunogen:	Synthetic peptide from 1-32 peptide of the alpha subunit of human Inhibin alpha
Specificity:	Inhibin Alpha
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM446-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM446-10M**
Xmatrx®	**AX446-YCD, AX446-50D**
NanoVip™®	**AX446-4M**
Concentrated:	**MU446-UC, MU446-5UC**
Recommended Positive Control:	**FG-446M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-446M (Xmatrx & NanoVip™)**

Inhibins are dimeric gonadal protein hormones that negatively regulate pituitary FSH synthesis and secretion. Inhibin contains an alpha and beta subunit linked by disulfide bonds. Two forms of inhibin differ in their beta subunits (A or B), while their alpha subunits are identical. Inhibin B is comprised of the Inhibin alpha subunit disulfide linked to the Inhibin beta subunit. Initial studies indicated that Inhibin is a critical negative regulator of gonadal stromal cell proliferation and was the first secreted protein identified to have tumor-suppressor activity.

INI1/SNF5/SMARCB1



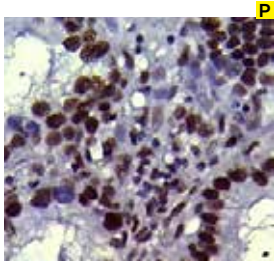
Kidney tissue stained with Anti-INI1/SNF5/SMARCB1 using DAB Chromogen

Clone:	SMARCB1/3984
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Human INI1/SNF5/SMARCB1
Specificity:	INI1/SNF5/SMARCB1
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB97-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB97-10M**
Xmatrx®	**AXB97-YCD, AXB97-50D**
NanoVip™®	**AXB97-4M**
Concentrated:	**MUB97-UC, MUB97-5UC**
Recommended Positive Control:	**FG-B97M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B97M (Xmatrx & NanoVip™)**

Integrase interactor 1 (INI-1), also known as hSNF5, is an integral component of the hSWI/SNF (SWItch/Sucrose NonFermentable) chromatin remodeling complex, which facilitates DNAdependent cellular processes including transcription, replication, and repair. The INI-1 gene is often mutated or deleted in malignant rhabdoid tumor (MRT), a tumor which is potentially mimicked by medulloblastoma and supratentorial primitive neuroectodermal tumors (sPNETs).

INI-1



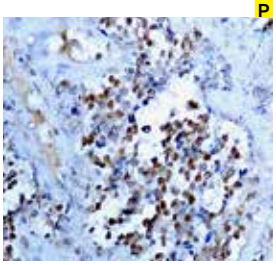
Renal cell carcinoma tissue stained with Anti-INI-1 using DAB Chromogen

Clone:	A-5
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human INI-1
Specificity:	INI-1
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB02-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB02-10M**
Xmatrx®	**AXB02-YCD, AXB02-50D**
NanoVip™®	**AXB02-4M**
Concentrated:	**MUB02-UC, MUB02-5UC**
Recommended Positive Control:	**FG-B02M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B02M (Xmatrx & NanoVip™)**

Integrase interactor 1 (INI-1), also known as hSNF5, is an integral component of the hSWI/SNF (SWItch/Sucrose NonFermentable) chromatin remodeling complex, which facilitates DNA dependent cellular processes including transcription, replication, and repair. The INI-1 gene is often mutated or deleted in malignant rhabdoid tumor (MRT), a tumor which is potentially mimicked by medulloblastoma and supratentorial primitive neuroectodermal tumors (sPNETs). The morphology of MRTs can present challenges in differential diagnosis.

INSM1



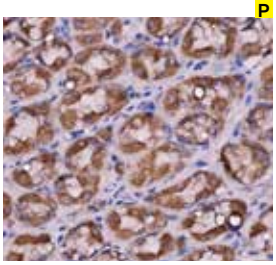
Pancreas tissue stained with Anti-INSM1 using DAB Chromogen

Clone:	A-8
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Human INSM1
Specificity:	INSM1
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB44-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB44-10M**
Xmatrx®	**AXB44-YCD, AXB44-50D**
NanoVip™®	**AXB44-4M**
Concentrated:	**MUB44-UC, MUB44-5UC**
Recommended Positive Control:	**FG-B44M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B44M (Xmatrx & NanoVip™)**

INSM1 (Insulinoma-associated protein 1), also known as IA-1, is a transcriptional factor with a zinc finger DNA-binding domain that is involved in neuroendocrine cell differentiation as a transcriptional repressor. The expression of INSM1 is seen in fetal Neuroendocrine developmental tissues and in normal adult neuroendocrine tissues such as adrenal medulla, pineal gland, pituitary gland, gastrointestinal enterochromaffin cells, pancreatic islet cells, thyroid C cells and developing neurons.

IL-5



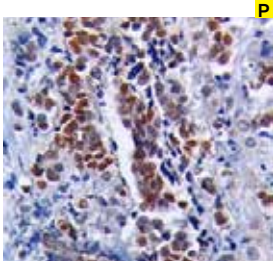
Stomach tissue stained with Anti-IL-5 using DAB Chromogen

Clone:	IL5/4161
Isotype:	IgG2b, kappa
Source:	Mouse
Immunogen:	Human IL-5
Specificity:	IL-5
Localization:	Ext/Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD09-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD09-10M**
Xmatrx®	**AXD09-YCD, AXD09-50D**
NanoVip™®	**AXD09-4M**
Concentrated:	**MUD09-UC, MUD09-5UC**
Recommended Positive Control:	**FG-D09M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D09M (Xmatrx & NanoVip™)**

Interleukin-5 (IL-5), also called as T cell-replacing factor (TRF) is a T-cell derived cytokine that acts as a growth and differentiation factor for both B cells and eosinophils. It is a critical regulator for eosinopoiesis, eosinophil maturation and activation. IL-5 binds to its receptor which is a heterodimer and regulates the expression of genes required for cell proliferation, survival and maturation. JAK-STAT, Btk and Ras/Raf-ERK signalling pathways regulates the cellular functions of IL5. IL-5 is considered as a target for the treatment of eosinophilic diseases.

INSM1



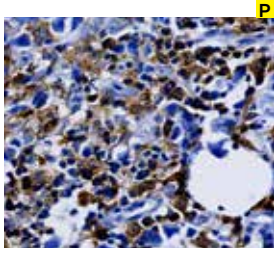
Neuroendocrine tissue stained with Anti-INSM1 using DAB Chromogen

Clone:	INSM1/6286R
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human INSM1
Specificity:	INSM1
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HK522-XAK
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ANC07-5M**
Ready-to-Use (Automated):	
***i*6000™**	**ANC07-10M**
Xmatrx®	**AYC07-YCD, AYC07-50D**
NanoVip™®	**AYC07-4M**
Concentrated:	**NUC07-UC, NUC07-5UC**
Recommended Positive Control:	**FG-C07N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C07N (Xmatrx & NanoVip™)**

INSM1 (Insulinoma-associated protein 1), also known as IA-1, is a transcriptional factor with a zinc finger DNA-binding domain that is involved in neuroendocrine cell differentiation as a transcriptional repressor. The expression of INSM1 is seen in fetal Neuroendocrine developmental tissues and in normal adult neuroendocrine tissues such as adrenal medulla, pineal gland, pituitary gland, gastrointestinal enterochromaffin cells, pancreatic islet cells, thyroid C cells and developing neurons. This helps in identification of neuroendocrine tumors such as Small Cell Lung Carcinoma (SCLC), Pituitary tumors, Medullary Thyroid Carcinoma, Merkel Cell Carcinoma, Olfactory Neuroblastoma and Pheochromocytoma and their distinction from other neoplasms, such as adenocarcinomas, which exhibit little to no INSM1 expression.

IL-6ST



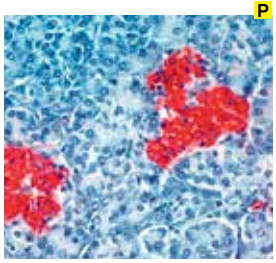
Adrenal gland tissue stained with Anti-IL-65T using DAB Chromogen

Clone:	IL6ST/4101
Isotype:	IgG2b, kappa
Source:	Mouse
Immunogen:	Human IL-6ST
Specificity:	IL-6ST
Localization:	Ext/Mem
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD04-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD04-10M**
Xmatrx®	**AXD04-YCD, AXD04-50D**
NanoVip™®	**AXD04-4M**
Concentrated:	**MUD04-UC, MUD04-5UC**
Recommended Positive Control:	**FG-D04M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D04M (Xmatrx & NanoVip™)**

IL6ST, also designated as Glycoprotein 130 (gp 130) IL6-beta, IL6RB, or CD130, is a transmembrane glycoprotein that is the founding member of the class of all cytokine receptors. It is a signal transducer shared by many cytokines including interleukin 6 (IL6), ciliary neurotrophic factor (CNTF), oncostatin M (OSM) and leukemia inhibitory factor (LIF). This protein functions as a part of the cytokine receptor complex and plays a critical role in regulating myocyte apoptosis. The binding of IL6ST to its receptor IL-6R initiates signal transmission and mutations in this gene lead to tumorigenesis, which might be a result of dysfunctional intracellular compartment signalling.

Insulin



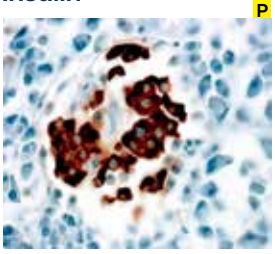
Pancreas tissue stained with Anti-Insulin using AEC chromogen

Clone:	HB125
Isotype:	IgG 1
Source:	Mouse
Immunogen:	Purified human insulin
Specificity:	Insulin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM029-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM029-10M**
Xmatrx®	**AX029-YCD, AX029-50D**
NanoVip™®	**AX029-4M**
Concentrated:	**MU029-UC, MU029-5UC**
Recommended Positive Control:	**FG-029M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-029M (Xmatrx & NanoVip™)**

Lack of this hormone gives rise to diabetes mellitus. The development of specific antibodies to various polypeptide hormones have made IHC localization of these hormones such as Insulin (which is produced in the pancreas by beta cells of Islet of Langerhans) the most sensitive and reliable means available for an accurate characterization of the function of islet cell tumors. This antibody recognizes the A chain loop of human Insulin. Cross-reactivity with bovine, rat and mouse Insulin has been observed. This antibody stains insulin in the cytoplasm of beta cells in the pancreas.

Insulin



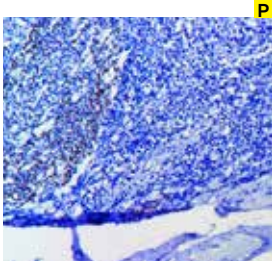
Insulin Pancreas tissue stained with Anti-Insulin using DAB chromogen

Clone:	EP125
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues in human Insulin protein
Specificity:	Human Insulin protein
Localization:	Cytoplasm
Pre-treatment:	EZ-AR1/EZ-AR2
Manual/i6000:	HK546-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN735-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN735-10M**
Xmatrx®	**AY735-YCD, AY735-50D**
NanoVip™®	**AY735-4M**
Concentrated:	**NU735-UC, NU735-5UC**
Recommended Positive Control:	**FG-735N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-735N (Xmatrx & NanoVip™)**

Insulin is a hormone that regulates glucose homeostasis. It is synthesized in the pancreas within the β-cells of the islets of Langerhans. One million to three million islets of Langerhans (pancreatic islets) form the endocrine part of the pancreas, which is primarily an exocrine gland. The endocrine portion accounts for only 2% of the total mass of the pancreas. Within the islets of Langerhans, beta cells constitute 65–80% of all the cells. The antibody labels both normal and neoplastic insulin-producing cells. It is useful in identifying insulinoma.

Interleukin 6



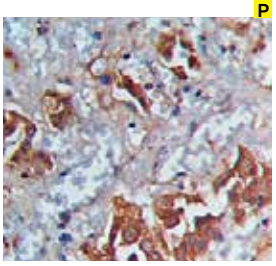
Tonsil tissue stained with Anti-Ki67 using FAST RED Chromogen

Clone:	10C12
Isotype:	IgG2a
Source:	Mouse
Immunogen:	Human Interleukin 6
Specificity:	Interleukin 6
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB60-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB60-10M**
Xmatrx®	**AXB60-YCD, AXB60-50D**
NanoVip™®	**AXB60-4M**
Concentrated:	**MUB60-UC, MUB60-5UC**
Recommended Positive Control:	**FG-B60M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B60M (Xmatrx & NanoVip™)**

IL-6 is responsible for stimulating acute phase protein synthesis and also the production of neutrophils in the bone marrow. It supports the growth of B cells and is an antagonistic to regulatory T cells. IL-6 is a pro-inflammatory cytokine. Interleukin (IL)-6 is produced at the site of inflammation and plays a key role in the acute phase response. Il-6 is a Prognostic marker in renal carcinoma. This gene encodes a cytokine that functions in inflammation and the maturation of B cells.

Interferon Alpha



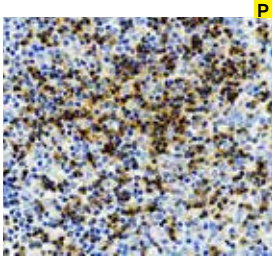
Neuroendocrine tumor tissue stained with Anti-Interferon Alpha using DAB Chromogen

Clone:	IFNA/6689
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human Interferon Alpha
Specificity:	Interferon Alpha
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC31-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC31-10M**
Xmatrx®	**AXC31-YCD, AXC31-50D**
NanoVip™®	**AXC31-4M**
Concentrated:	**MUC31-UC, MUC31-5UC**
Recommended Positive Control:	**FG-C31M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C31M (Xmatrx & NanoVip™)**

Interferon alpha is one of the cytokines that is produced by our immune system in response to foreign particles entered. Interferon alpha specifically bind to Type-1 interferon alpha receptor (IFNAR1) and down regulating of this receptor plays an important role in determining cytokine signaling magnitude and duration. These are produced by macrophages and have antiviral activities. Interferon stimulates the production of two enzymes – a protein kinase and oligoadenylate Synthetase. They are widely used as therapeutic agents because of their anti-tumor, anti-viral effects and modulatory effects on the immune system.

IgD



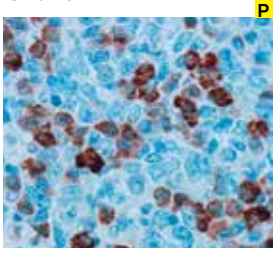
Lymphoid tissue stained with Anti-IgD using DAB Chromogen

Clone:	IgG1, kappa
Isotype:	IgG1, kappa
Source:	Mouse
Immunogen:	Human IgD
Specificity:	IgD
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD32-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD32-10M**
Xmatrx®	**AXD32-YCD, AXD32-50D**
NanoVip™®	**AXD32-4M**
Concentrated:	**MUD32-UC, MUD32-5UC**
Recommended Positive Control:	**FG-D32M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D32M (Xmatrx & NanoVip™)**

Immunoglobulin D (IgD) is one of the Immunoglobins with monomeric structure consisting of δ heavy chains and either κ or λ light chains. It is the major antigen receptor isotype co-expressed with IgM and plays a biological role as a transmembrane receptor molecule on the surface of mature/naive B cells. IgD is detected in the surface/cytoplasm of neoplastic cells of common small B lymphoid cell such as mantle cell lymphoma, small lymphocytic lymphoma, follicular lymphoma and marginal zone lymphoma. It is useful in distinguishing B-cell lineage derived from Lymphomas, Leukemias, and Plasmacytomas

J-chain



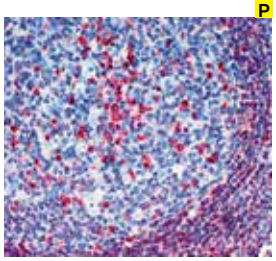
Tonsil tissue stained with Anti-J-chain using DAB chromogen

Clone:	SP105
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide near the internal region of human J-chain
Specificity:	Human J-chain
Localization:	perinuclear spaces and endoplasmic reticulum of the lymphocytes
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN756-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN756-10M**
Xmatrx®	**AY756-YCD, AY756-50D**
NanoVip™®	**AY756-4M**
Concentrated:	**NU756-UC, NU756-5UC**
Recommended Positive Control:	**FG-756N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-756N (Xmatrx & NanoVip™)**

J chain is a small glycopeptide and is structurally unrelated to heavy or light chains, but is synthesized by all plasma cells that secrete polymeric immunoglobulins. J chains are present in a large proportion of the immunoglobulin-positive cells in the germinal centres of the tonsils and lymph nodes. B cells secrete J chain at an early stage of differentiation with the expression persisting in those cells destined to produce IgA or IgM. J chain has been proposed to play a role in the mucosal transport of polymeric Igs by the polymeric Ig receptor.

J Chain



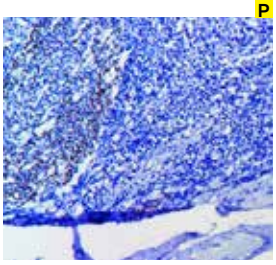
Tonsil tissue stained with Anti-J-chain using Fast Red chromogen

Clone:	JC88
Isotype:	IgG 1 Kappa
Source:	Mouse
Immunogen:	Human J chain
Specificity:	J chain
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM374-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM374-10M**
Xmatrx®	**AX374-YCD, AX374-50D**
NanoVip™®	**AX374-4M**
Concentrated:	**MU374-UC, MU374-5UC**
Recommended Positive Control:	**FG-374M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-374M (Xmatrx & NanoVip™)**

J chain is a small, glycopeptide of 15 kD. It is structurally unrelated to heavy or light chains, but is synthesized by all plasma cells that secrete polymeric immunoglobulins. J chains are present in a large proportion of the immunoglobulin-positive cells in the germinal centers of the tonsils and lymph nodes. B cells secrete J chain at an early stage of differentiation with the expression persisting in those cells destined to produce IgA or IgM.

Kappa Light Chain



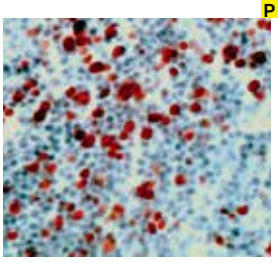
Tonsil tissue stained with Anti-Ki67 using FAST RED Chromogen

Clone:	HP6053+L1C1
Isotype:	IgG1
Source:	IgG1
Immunogen:	Human Kappa Light Chain
Specificity:	Kappa Light Chain
Localization:	Cytoplasm
Pre-treatment:	EZ-AR1
Manual/i6000:	HK521-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AM980-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM980-10M**
Xmatrx®	**AX980-YCD, AX980-50D**
NanoVip™®	**AX980-4M**
Concentrated:	**MU980-UC, MU980-5UC**
Recommended Positive Control:	**FG-980M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-980M (Xmatrx & NanoVip™)**

There are two types of light chain in humans (Kappa (?) Light Chain and Lambda (?) Light Chain. Normally, the total Kappa to Lambda ratio is about 2:1 in serum, with a highly divergent ratio indicative of neoplasm. If one type of lightchain level is significantly higher than that of the other type, it indicates a malignant condition, such as B-cell lymphoma. This antibody is designed specific for Kappa Light Chain of Immunoglobulin, as a B cell marker. Detection of gene rearrangements and abnormal expression of Kappa Light Chain in immunoglobulin, are important methods in the diagnosis of B-cell lymphoma,? Plasma cell myeloma, and Reactive follicular hyperplasia.

Ki-67 Antigen, Proliferating Cell



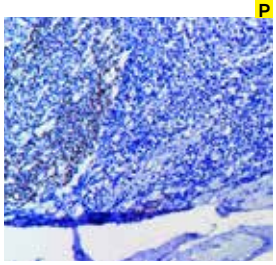
Tonsil tissue stained with Anti-KI67 using AEC chromogen

Clone:	MIB-1
Isotype:	IgG1
Source:	Mouse
Immunogen:	Peptide fragment of Ki-67 antigen
Specificity:	Ki-67 antigen
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM297-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM297-10M**
Xmatrx®	**AX297-YCD, AX297-50D**
NanoVip™®	**AX297-4M**
Concentrated:	**MU297-UC, MU297-5UC**
Recommended Positive Control:	**FG-297M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-297M (Xmatrx & NanoVip™)**

Ki-67 is one of the most widely studied proliferating cell antigens. The expression of Ki-67 antigen is limited to cells in phase G1, S and G2 with the highest levels present in the M phase. Ki-67 is more likely to be expressed in aneuploid tumors compared to diploid tumors, and it is associated with a high mitotic count and high histology grade.This monoclonal antibody enables detection of Ki-67 in proliferating cell populations in routine paraffin sections. The antibody stains positive in the nucleus of proliferation cells.

Ki67



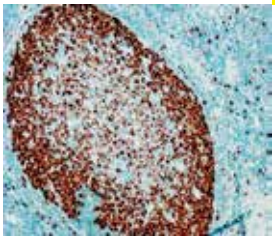
Tonsil tissue stained with Anti-Ki67 using FAST RED Chromogen

Clone:	K-2 and rabbit polyconal
Isotype:	IgG + Polyclonal
Source:	Mouse & Rabbit
Immunogen:	Human Ki67
Specificity:	Ki67
Localization:	Nucleus
Pre-treatment:	EZ-AR1
Manual/i6000:	HK521-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AMA01-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA01-10M**
Xmatrx®	**AXA01-YCD, AXA01-50D**
NanoVip™®	**AXA01-4M**
Concentrated:	**MUA01-UC, MUA01-5UC**
Recommended Positive Control:	**FG-A01M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A01M (Xmatrx & NanoVip™)**

Ki-67 is a nuclear protein that is only present in proliferating cells. This makes Ki-67 a useful marker for distinguishing proliferating cells. Ki-67 is present in the cells during all times of the cell cycle except for G0 phase. Due to this characteristic, Ki-67 can be used to reliably calculate the growth fractions of cell populations. This can make Ki-67 useful in providing efficacy of carcinoma.

Ki-67



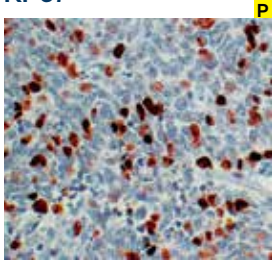
Tonsil tissue stained with Anti-ki67 antibody using DAB chromogen

Clone:	EP5
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues in human Ki-67 protein
Specificity:	Ki-67
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN727-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN727-10M**
Xmatrx®	**AY727-YCD, AY727-50D**
NanoVip™®	**AY727-4M**
Concentrated:	**NU727-UC, NU727-5UC**
Recommended Positive Control:	**FG-727N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-727N (Xmatrx & NanoVip™)**

Ki-67 antigen is a nuclear antigen specifically associated with cell proliferation. Ki-67 is expressed in all proliferating cells which are in the active phases of the cell cycle (late G1, S, G2, and mitosis), but is absent from resting cells (G0). It is strictly associated with cell proliferation. Ki-67 labeling index has been shown to be elevated in early stage and further increased in advanced stage of various types of carcinoma including breast carcinoma, colon carcinoma, prostate carcinoma and brain carcinoma.

Ki-67



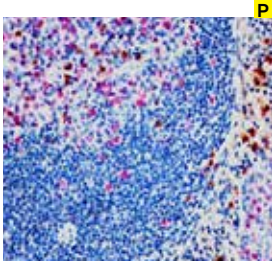
Tonsil tissue stained with Anti-Ki-67 using DAB chromogen

Clone:	K-2
Isotype:	IgG1 Kappa
Source:	Mouse
Immunogen:	Recombinant Ki-67 protein fragment close to C-terminus
Specificity:	Ki-67 antigen
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM410-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM410-10M**
Xmatrx®	**AX410-YCD, AX410-50D**
NanoVip™®	**AX410-4M**
Concentrated:	**MU410-UC, MU410-5UC**
Recommended Positive Control:	**FG-410M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-410M (Xmatrx & NanoVip™)**

Ki-67 reacts with a human nuclear antigen that is expressed in proliferating cells but not in resting cells. Ki-67 antigen is a potent tool for rapidly evaluating the growth fraction of any given human cell subset. It is particularly useful in studying malignant tumors and other pathogenic states as a measure of the proportion of proliferating cells. Immunostaining of Ki-67 antigen in normal tissue shows nuclear reactivity in cells of germinal centers of cortical follicles, cortical thymocytes, neck cells of gastrointestinal mucosa, and undifferentiated spermatogonia.

Ki-67 + Lambda Light Chain



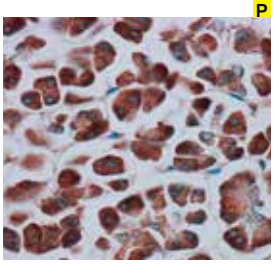
Tonsil tissue stained with Anti-Lamin B1 using FAST RED Chromogen

Clone:	K-2 and rabbit polyconal
Isotype:	IgG + Polyclonal
Source:	Mouse & Rabbit
Immunogen:	Human Ki-67 + Lambda Light Chain
Specificity:	Ki-67 + Lambda Light Chain
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AC562-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AC562-10M**
Xmatrx®	**AC562-YCD, AC562-50D**
NanoVip™®	**AC562-4M**
Recommended Positive Control:	**FG-562C (Manual & i6000)**
Recommended Microchamber Slide:	**FB-562C (Xmatrx & NanoVip™)**

Ki67 is a nuclear protein present in cells at all phase of the cell cycle except G0. As such, Ki67 is a useful marker to identify the proliferation activity of cell populations. Ki-67 is a potent tool for rapidly evaluating the growth fraction of any given human cell subset. It is particulary usefull in studying malignant tumours and other pathogenic states as a measure of the proportion of proliferating cells. The light chain is a polypeptide subunit of immunoglobulin expressed by B cells.

KRAS



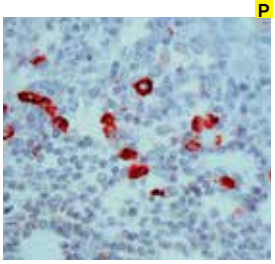
Pancreas tissue tissue stained with Anti-KRA Susing DAB chromogen

Clone:	Polyclonal
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to a sequence at the C-terminal of human KRAS
Specificity:	Human KRAS
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR751-5R**
Ready-to-Use (Automated):	
***i*6000™**	**AR751-10R**
Xmatrx®	**AW751-YCD, AW751-50D**
NanoVip™®	**AW751-4M**
Concentrated:	**PU751-UP, PU751-5UP**
Recommended Positive Control:	**FG-751P (Manual & i6000)**
Recommended Microchamber Slide:	**FB-751P (Xmatrx & NanoVip™)**

KRAS is a member of the small GTPase superfamily. A single aminoacid substitution is responsible for an activating mutation. The transforming protein that results is implicated in various malignancies,including lung adenocarcinoma, mucinous adenoma, ductal carcinoma of the pancreas and colorectal carcinoma.

Lambda Light Chain



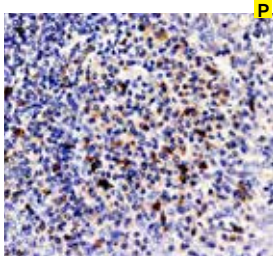
Tonsil tissue stained with Anti-lambda light chain using DAB chromogen

Clone:	Polyclonal
Source:	Rabbit
Immunogen:	Pool of human lambda Bence Jones proteins
Specificity:	Lambda light chains
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR049-5R**
Ready-to-Use (Automated):	
***i*6000™**	**AR049-10R**
Xmatrx®	**AW049-YCD, AW049-50D**
NanoVip™®	**AW049-4M**
Concentrated:	**PU049-UP, PU049-5UP**
Recommended Positive Control:	**FG-049P (Manual & i6000)**
Recommended Microchamber Slide:	**FB-049P (Xmatrx & NanoVip™)**

The light chains of immunoglobulin molecules may be either Kappa or Lambda. Antibodies to kappa and lambda light chains are used for the evaluation of leukemias, plasmacytomas, and certain non-Hodgkin's lymphomas, the majority of which are derived from B-cell lineage. The most important uses of this technique would be in distinguishing atypical reactive follicular lymphoid hyperplasia from follicular lymphoma, undifferentiated carcinoma from large cell lymphoma, pseudolymphoma from lymphoma, and reactive plasmacytosis from well differentiated plasmacytoma.

LAG3



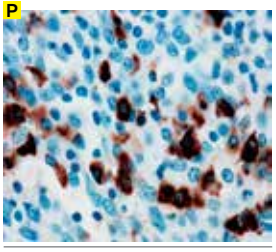
Tonsil tissue stained with Anti-LAG3 using DAB chromogen

Clone:	Polyclonal
Isotype:	IgG
Source:	Rabbit
Immunogen:	Lymphocyte activation gene 3 protein precursor recombinant protein epitope signature tag (PrEST)
Specificity:	Human LAG3
Localization:	Cytoplasm/Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR917-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AR917-10RE**
Xmatrx®	**AW917-YCDE, AW917-50DE**
NanoVip™®	**AW917-4ME**
Concentrated:	**PU917-UPE, PU917-5UPE**
Recommended Positive Control:	**FG-917PE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-917PE (Xmatrx & NanoVip™)**

LAG-3 (Lymphocyte Activation Gene 3) or CD223 belongs to the Ig superfamily and has high homology to CD4. LAG-3 is an inhibitory T-cell surface molecule that has been found to directly modulate T-cell homeostasis. LAG3 is expressed on populations of activated T cells, such as Tregs and natural killer (NK) cells, and some monocyte-derived cell populations. LAG3 negatively regulates cellular proliferation, activation, and homeostasis of T cells, and has been reported to play a role in Treg suppressive function. LAG3 is often co-expressed with PD-1 on the surface of tumor infiltrating lymphocytes, where the two proteins act independently to synergistically promote tumoral immune escape.

Lambda Light Chain



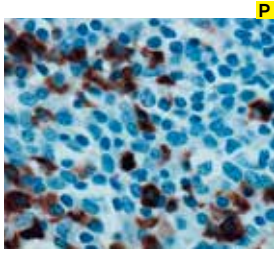
Tonsil tissue stained with anti-Lambda using DAB chromogen

Clone:	EP172
Isotype:	IgG
Source:	Rabbit
Immunogen:	A recombinant protein fragment corresponding to human IgA protein
Specificity:	Human IgA protein
Localization:	Membrane/Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN715-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN715-10M**
Xmatrx®	**AY715-YCD, AY715-50D**
NanoVip™®	**AY715-4M**
Concentrated:	**NU715-UC, NU715-5UC**
Recommended Positive Control:	**FG-715N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-715N (Xmatrx & NanoVip™)**

The basic structure of an immunoglobulin molecule consists of two identical heavy chains, either γ, μ, α, δ or ε and two identical light chains, either kappa or lambda. The gene rearrangement process that generates the immunoglobulin molecule results in either a productive kappa or lambda gene. The ratio of kappa and lambda light chains varies between Ig classes and subclasses. The lambda light chain antibody labels the lambda light chain that expresses normal and neoplastic B lymphocytes and plasma cells. Other cells may also express lambda light chain due to nonspecific uptake of immunoglobulin. The occurrence of a mixture of kappa and lambda chain expressing cells suggests a polyclonal population and a reactive or non-neoplastic proliferation of B cells.

Lambda Light Chain



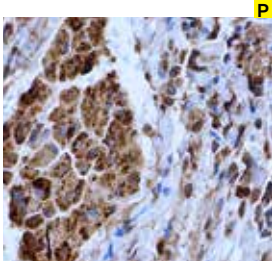
Tonsil tissue stained with anti-Human Lambda Light Chain using DAB chromogen

Clone:	SP147
Isotype:	IgG
Source:	Rabbit
Immunogen:	Recognizes the lambda immunoglobulin light chain, which comprises approximately 40% of light chain in the human
Specificity:	Human Lambda Light Chain
Localization:	Cytoplasm
Pre-treatment:	EZ-AR1
Manual/i6000:	HK521
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AN763-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN763-10M**
Xmatrx®	**AY763-YCD, AY763-50D**
NanoVip™®	**AY763-4M**
Concentrated:	**NU763-UC, NU763-5UC**
Recommended Positive Control:	**FG-763N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-763N (Xmatrx & NanoVip™)**

The basic structure of an immunoglobulin molecule consists of two identical heavy chains, either γ, μ, α, δ or ε and two identical light chains,either kappa or lambda.The gene rearrangement process that generates the immuno globulin molecule results in either a productive kappa or lambda gene. The ratio of kappa and lambda light chains varies between Ig classes and subclasses. The lambda light chain antibody labels the lambda light chain that expresses normal and neoplastic B lymphocytes and plasma cells. Other cells may also express lambda light chain due to nonspecific uptake of immunoglobulin.

Lysozyme



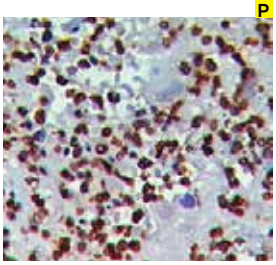
Kidney tissue stained with Anti-Lysozyme using DAB Chromogen

Clone:	LYZ/3943
Isotype:	N/A
Source:	Mouse
Immunogen:	Human Lysozyme
Specificity:	Lysozyme
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD31-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD31-10M**
Xmatrx®	**AXD31-YCD, AXD31-50D**
NanoVip™®	**AXD31-4M**
Concentrated:	**MUD31-UC, MUD31-5UC**
Recommended Positive Control:	**FG-D31M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D31M (Xmatrx & NanoVip™)**

Lysozyme is a 14.4 kDa enzyme that has bacteriolytic function which is critical for mammalian innate immune function. It destroys bacterial cell wall peptidoglycan by hydrolyzing the polysaccharide component of the cell wall. Lysozyme is present in cytoplasmic granules of polymorphonuclear neutrophils (PMN) and is released through mucosal secretions such as tears and saliva. Expression of Lysozyme is seen in granulocytes, myeloid cells, histiocytes, monocytes and macrophages in human tonsil, skin, spleen, lung, kidney and colon. Lysozyme is an important marker in detecting the myeloid or monocytic nature of Acute Leukemia, large lymphocytes and histiocytic neoplasias, as well as classifying lymphoproliferative disorders

Lamin B1



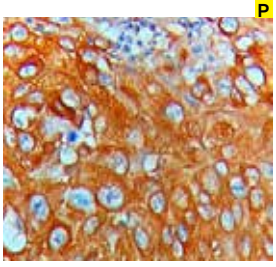
Tonsil tissue stained with Anti-Lamin B1 using DAB Chromogen

Clone:	A-11
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human Lamin B1
Specificity:	Lamin B1
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC35-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC35-10M**
Xmatrx®	**AXC35-YCD, AXC35-50D**
NanoVip™®	**AXC35-4M**
Concentrated:	**MUC35-UC, MUC35-5UC**
Recommended Positive Control:	**FG-C35M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C35M (Xmatrx & NanoVip™)**

Lamin B1 (LMNB1) is a heavily phosphorylated type V intermediate filament and a component of nuclear lamina. The lamin family has been divided into types A and B and is important in maintaining integrity of nuclear envelope and cellular morphology. They play a major role in regulating nuclear functions and activities, including DNA replication and transcription, cell cycle regulation, cell development and differentiation, nuclear and chromatin organization, nuclear migration and apoptosis. Mutations in Lamin B1gene causes autosome-dominant leukodystrophy, an adult-onset demyelinating disorder characterized by symmetrical widespread myelin loss in the central nervous system with a phenotype similar to chronic progressive multiple sclerosis.

Laminin Receptor



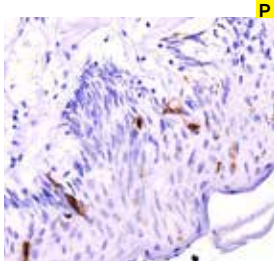
Breast squamous carcinoma tissue stained with Anti-Laminin Receptor using DAB Chromogen

Clone:	RPSA/2699
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human Laminin Receptor
Specificity:	Laminin Receptor
Localization:	Nuc, Cyt & Mem
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC29-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC29-10M**
Xmatrx®	**AXC29-YCD, AXC29-50D**
NanoVip™®	**AXC29-4M**
Concentrated:	**MUC29-UC, MUC29-5UC**
Recommended Positive Control:	**FG-C29M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C29M (Xmatrx & NanoVip™)**

Laminin Receptor belongs to a family of extracellular matrix glycoproteins that are the major non-collagenous constituent of basement membrane. The laminins are essential for various biological processes such as cell adhesion, cell- differentiation, cell-migration, cell- signaling, neurite outgrowth and metastasis. The laminin interacts with cell surface receptors including members of the integrin family and as well as non-integrin laminin-binding proteins. The high expression of laminin receptor is found to be in colon carcinoma and lung carcinoma than in normal cells.

Langerin



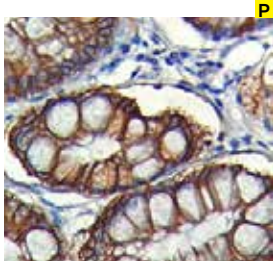
Skin tissue stained with Anti-Langerin using DAB Chromogen

Clone:	H-4
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human Langerin
Specificity:	Langerin
Localization:	Mem & Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB79-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB79-10M**
Xmatrx®	**AXB79-YCD, AXB79-50D**
NanoVip™®	**AXB79-4M**
Concentrated:	**MUB79-UC, MUB79-5UC**
Recommended Positive Control:	**FG-B79M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B79M (Xmatrx & NanoVip™)**

Langerin is found on Langerhans cells and is a type II transmembrane cell surface receptor. Extracellular domain of langerin has a neck region containing series of heptad repeats and a CRD(C-terminal C-type carbohydrate-recognition domain). Langerhans cells are immature dendritic cells (DCs) which are seen in epidermis and other mucosal epithelia. Epidermal LCs has strong immune-stimulatory capacity and plays an important role in initiating and regulating of the immune system. Langerin protein can be found in Human spleen, lymph node, thymus, liver, lung and heart. Human langerin is found on the genome maps at chromosome 2p13.3 and encodes a 328 amino acid protein.

LI Cadherin



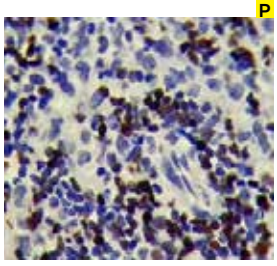
Stomach/ Intestine tissue stained with Anti-LI Cadherin/ Cadherin 17 using DAB Chromogen

Clone:	CDH17/2615
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Human LI Cadherin
Specificity:	LI Cadherin
Localization:	Mem & Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB96-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB96-10M**
Xmatrx®	**AXB96-YCD, AXB96-50D**
NanoVip™®	**AXB96-4M**
Concentrated:	**MUB96-UC, MUB96-5UC**
Recommended Positive Control:	**FG-B96M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B96M (Xmatrx & NanoVip™)**

LI-cadherin (also known as CDH17) belongs to calciumdependent, membrane-associated glycoproteins of the cadherin superfamily. Their function is to mediate cell-cell binding critical to the maintenance of tissue structure and morphogenesis. The expression of LI-cadherin is restricted to Liver and intestine tissues and plays a role in the morphological organization of hepatocytes and enterocytes. It has been shown to be a useful marker for distinguishing between primary urinary bladder adenocarcinoma and urothelial carcinoma with glandular differentiation.

LEF1



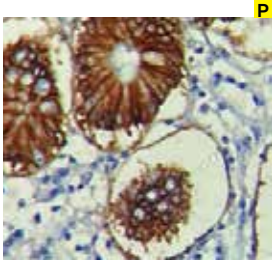
Hodgkins Lymphoma tissue stained with Anti-LEF1 using DAB Chromogen

Clone:	EP310
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human LEF1
Specificity:	LEF1
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ANB32-5M**
Ready-to-Use (Automated):	
***i*6000™**	**ANB32-10M**
Xmatrx®	**AYB32-YCD, AYB32-50D**
NanoVip™®	**AYB32-4M**
Concentrated:	**NUB32-UC, NUB32-5UC**
Recommended Positive Control:	**FG-B32N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B32N (Xmatrx & NanoVip™)**

LEF1 (Lymphoid Enhancer-binding Factor 1) is a functionally diverse member of the high mobility group (HMG) DNA binding protein family of transcription factors TCF/LEF. It participates as a regulator in Wnt signaling pathways and is an important factor in lymphopoiesis. It binds to a functionally important site in the T-cell receptor-alpha enhancer, thereby conferring maximal enhancer activity. LEF1 is expressed normally in T and pro-B cells but not expressed in mature B cells. Anti-LEF1 antibody may be used as an aid for differentiation of chronic lymphocytic leukemia/small lymphocytic lymphoma from other small B cell lymphomas.

LI-cadherin/CDH17



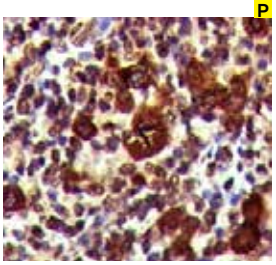
Colon tissue stained with Anti-LI-cadherin/CDH17 using DAB Chromogen

Clone:	CAEX3
Isotype:	IgG1, Kappa
Source:	Mouse
Immunogen:	Human LI-cadherin/ CDH17
Specificity:	LI-cadherin/CDH17
Localization:	Mem & Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB06-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB06-10M**
Xmatrx®	**AXB06-YCD, AXB06-50D**
NanoVip™®	**AXB06-4M**
Concentrated:	**MUB06-UC, MUB06-5UC**
Recommended Positive Control:	**FG-B06M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B06M (Xmatrx & NanoVip™)**

LI-cadherin (also known as CDH17) belongs to calciumdependent, membrane-associated glycoproteins of the cadherin superfamily. Their function is to mediate cell-cell binding critical to the maintenance of tissue structure and morphogenesis. The expression of LI-cadherin is restricted to Liver and intestine tissues and plays a role in the morphological organization of hepatocytes and enterocytes. It has been shown to be a useful marker for distinguishing between primary urinary bladder adenocarcinoma and urothelial carcinoma with glandular differentiation.

EBV/LMP-1



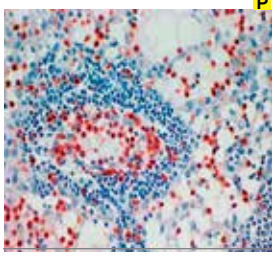
Hodgkins Lymphoma tissue stained with Anti-EBV/LMP-1 using DAB Chromogen

Clone:	CS1-4
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human EBV/LMP-1
Specificity:	EBV/LMP-1
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA66-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA66-10M**
Xmatrx®	**AXA66-YCD, AXA66-50D**
NanoVip™®	**AXA66-4M**
Concentrated:	**MUA66-UC, MUA66-5UC**
Recommended Positive Control:	**FG-A66M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A66M (Xmatrx & NanoVip™)**

EBV antibody is a mixture of four different monoclonal antibodies. All three antibodies in this combination recognize distinct epitopes in the hydrophilic carboxyl region of the latent membrane protein (LMP) protein encoded by the Epstein Barr Virus antibody (EBV). This antibody stains strongly with EBV positive lymphoblastoid cell lines and EBV infected B cell immunoblasts in infectious mononucleosis. EBV has been implicated with Hodgkin?s disease, and may be involved in the pathogenesis of Hodgkin?s occurring in children. Other studies have shown a low incidence of EBV in B-cell type lymphomas unless patients were immunologically impaired, such as postorgan transplantation or autoimmune type diseases.

Lysozyme



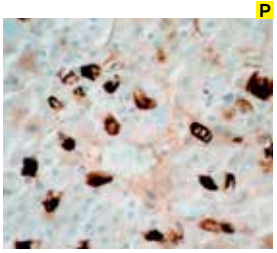
Lymph Node tissue stained with Anti-lysozyme using AEC chromogen

Clone:	Polyclonal
Source:	Rabbit
Immunogen:	Lysozyme isolated from the urine of monocytic leukemia patients
Specificity:	Lysozyme
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR024-5R**
Ready-to-Use (Automated):	
***i*6000™**	**AR024-10R**
Xmatrx®	**AW024-YCD, AW024-50D**
NanoVip™®	**AW024-4M**
Concentrated:	**PU024-UP, PU024-5UP**
Recommended Positive Control:	**FG-024P (Manual & i6000)**
Recommended Microchamber Slide:	**FB-024P (Xmatrx & NanoVip™)**

Lysozyme (also called muramidase) is an enzyme which acts on bacterial cell walls by cleaving N-acetyl-glucosaminyl-N-acetylmuramic acid linkages. Lysozyme is present in human milk, tears, saliva, and serum. It is also found in myeloid cells, monocytes and histiocytes, making it useful for the demonstration of the myeloid or monocytic nature of acute leukemia. This antibody stains the cytoplasm of granulocytes and monocytes/macrophages.

Luteinizing Hormone



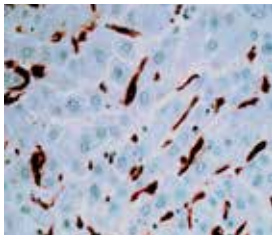
Pituitary tissue stained with Anti-Luteinizing Hormone using DAB chromogen

Clone:	SP132
Isotype:	IgG
Source:	Rabbit
Immunogen:	Recombinant human LH protein
Specificity:	Human Luteinizing Hormone
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN787-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN787-10M**
Xmatrx®	**AY787-YCD, AY787-50D**
NanoVip™®	**AY787-4M**
Concentrated:	**NU787-UC, NU787-5UC**
Recommended Positive Control:	**FG-787N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-787N (Xmatrx & NanoVip™)**

Luteinizing hormone (LH, also known as lutropin) is a tropic hormone which modulates the secretory activity of other endocrine glands. LH functions to stimulate ovulation, corpus luteum formation, estrogen and progesterone synthesis by the ovary and androgen synthesis by the interstitial cells of the testes. It is produced in the anterior hypophysis of the pituitary gland. The glycoprotein hormone, LH, like follicle stimulating hormone and thyroid stimulating hormone, is composed of a common alpha-subunit but also a specific beta-subunit, which characterizes each of these hormones.

Macrophage



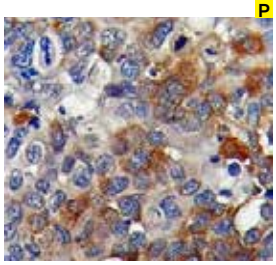
Kupffer cell tissue stained with Anti-Macrophage using DAB chromogen

Clone:	LN5
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human peripheral blood cells
Specificity:	Macrophages
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM165-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM165-10M**
Xmatrx®	**AX165-YCD, AX165-50D**
NanoVip™®	**AX165-4M**
Concentrated:	**MU165-UC, MU165-5UC**
Recommended Positive Control:	**FG-165M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-165M (Xmatrx & NanoVip™)**

LN5 stains an unidentified antigen in cytoplasm of macrophages and histiocytes in hematopoietic organs. It stains mantle zone B lymphocytes of the lymph node and spleen, spermatogonia, chief cells of the stomach, ductal epithelium of breast and tubular epithelium of kidney. It is strongly reactive with cases of true histiocytic lymphoma but is negative, except for macrophages, in Hodgkins disease and non-Hodgkins lymphomas. It can be an important tool for the study of malignant and benign histiocytic lesions. This antibody stains the cytoplasm of a specific population of human macrophage and histiocytes.

Mammaglobin



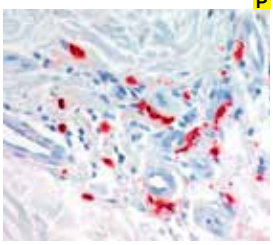
Breast Carcinoma tissue stained with Anti-Mammaglobin using DAB Chromogen

Clone:	MGB/4811R
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human Mammaglobin
Specificity:	Mammaglobin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ANC10-5M**
Ready-to-Use (Automated):	
***i*6000™**	**ANC10-10M**
Xmatrx®	**AYC10-YCD, AYC10-50D**
NanoVip™®	**AYC10-4M**
Concentrated:	**NUC10-UC, NUC10-5UC**
Recommended Positive Control:	**FG-C10N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C10N (Xmatrx & NanoVip™)**

Mammaglobin is a 10kDa breast-associated glycoprotein distantly related to secretoglobin family that includes human uteroglobin and lipophilin. It labels cytoplasm of normal breast epithelial cells as well as primary and metastatic breast carcinomas. Mammaglobin expression is absent in prostate, kidney, colon, rectum, small intestine, stomach, pancreas, lung and thyroid tissue. Anti-Mammaglobin is a sensitive and fairly specific marker for breast carcinoma and is used in a panel with GCDFP-15 and estrogen receptor (ER) in evaluating tumors of unknown primary origin.

Mast Cell Tryptase



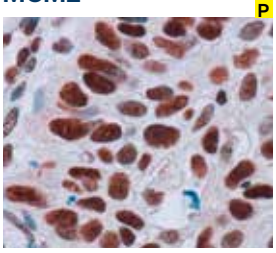
Dermis tissue stained with Anti-Mast Cell Tryptase using AEC chromogen

Clone:	AA1
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human Mast Cell Tryptase purified from human lung tissue
Specificity:	Mast Cell Tryptase antigen
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM419-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM419-10M**
Xmatrx®	**AX419-YCD, AX419-50D**
NanoVip™®	**AX419-4M**
Concentrated:	**MU419-UC, MU419-5UC**
Recommended Positive Control:	**FG-419M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-419M (Xmatrx & NanoVip™)**

The monoclonal antibody produced by clone AA1 reacts with human Mast Cell Tryptase in different tissues. Relatively high levels of the enzyme are found in mast cells of skin and lung. Tryptase, a structurally unique trypsin like serine protease, is a biochemical marker that has proven useful for disorders that involve systemic mast cell activation. It is shown to be implicated as a potential mediator in the pathology of several mast cell related allergic and inflammatory conditions, including rhinitis, conjunctivitis, and most notably asthma. This antibody stains Mast Cell Tryptase antigen in cytoplasm of mast cells in skin, lung and tonsil tissues.

MCM2



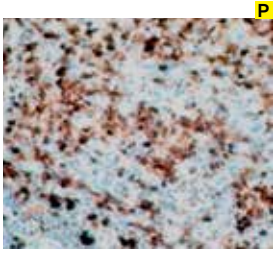
Cervical carcinoma tissue stained with Anti-MCM2 using DAB chromogen

Clone:	SP85
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide derived from internal region of human MCM2 protein.
Specificity:	Human MCM2
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN773-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN773-10M**
Xmatrx®	**AY773-YCD, AY773-50D**
NanoVip™®	**AY773-4M**
Concentrated:	**NU773-UC, NU773-5UC**
Recommended Positive Control:	**FG-773N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-773N (Xmatrx & NanoVip™)**

The protein encoded by this gene is one of the highly conserved minichromosome maintenance proteins (MCM). MCM2 (Minichromosome maintenance protein 2) is involved in the initiation of eukaryotic genome replication. MCM2 (also called CDCL1, mitotin and BM28), is a human nuclear protein that is crucial in the cell cycle, being involved in the onset of DNA replication and cell division. It is similar to members of the family of early S-phase proteins. Mincheva et al. (1994) mapped the gene to 3q21. From its localization, CDCL1 became a candidate for an oncogene affected by chromosomal breaks in acute myeloid leukemia (AML).

MCM2



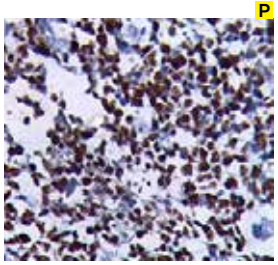
Tonsil tissue stained with Anti-MCM2 using DAB chromogen

Clone:	EP40
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues in human MCM2 protein
Specificity:	Human MCM2
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN834-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN834-10M**
Xmatrx®	**AY834-YCD, AY834-50D**
NanoVip™®	**AY834-4M**
Concentrated:	**NU834-UC, NU834-5UC**
Recommended Positive Control:	**FG-834N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-834N (Xmatrx & NanoVip™)**

MCM2 also known as DNA replication licensing factor is a member of the MCM family that regulates mammalian DNA replication. This family is composed of six related subunits, called the hexameric MCM2-7 complex, that are conserved in all eukaryotes. It functions as a replicative helicase, the molecular motor that both unwinds duplex DNA and powers fork progression during DNA replication. In the cell cycle, levels of the MCM family gradually increase in a variable manner from G0 into the G1/S phase. In the G0 stage, the amounts of MCM2 and MCM5 proteins are much lower than that of MCM7 and MCM3 proteins, so some of them participate in cell cycle regulation. MCM2 is localized in the nucleus throughout interphase. It is required for entry into the S phase and cell division.

MCM7



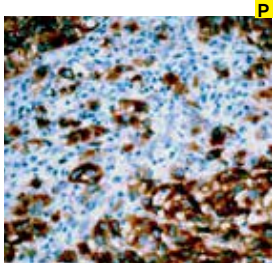
Tonsil tissue stained with Anti-MCM7 using DAB Chromogen

Clone:	SPM379
Isotype:	IgG1, kappa
Source:	Mouse
Immunogen:	Human MCM7
Specificity:	MCM7
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC57-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC57-10M**
Xmatrx®	**AXC57-YCD, AXC57-50D**
NanoVip™®	**AXC57-4M**
Concentrated:	**MUC57-UC, MUC57-5UC**
Recommended Positive Control:	**FG-C57M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C57M (Xmatrx & NanoVip™)**

The protein encoded by this gene is a highly conserved mini chromosome maintenance protein (MCM) which is essential for the initiation of eukaryotic genome replication. The hexametric protein complex formed by the MCM proteins is a key component of the pre-replication complex which is involved in the formation of replication forks and with the recruitment of other DNA replication related proteins. Meier-Gorlin Syndrome 1 and Follicular Adenoma are the diseases associated with MCM7. The related pathways are Mitotic G1-G1/S phases and CDK-mediated phosphorylation and removal of Cdc6.

Melan-A (MART-1)



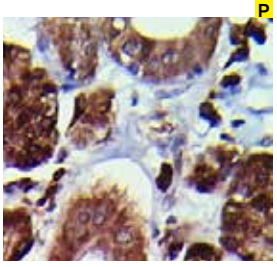
Melanoma tissue stained with Anti-Melan-A using DAB chromogen

Clone:	A103
Isotype:	IgG
Source:	Mouse
Immunogen:	Recombinant Melan-A protein
Specificity:	Melan-A or MART-1
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM361-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM361-10M**
Xmatrx®	**AX361-YCD, AX361-50D**
NanoVip™®	**AX361-4M**
Concentrated:	**MU361-UC, MU361-5UC**
Recommended Positive Control:	**FG-361M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-361M (Xmatrx & NanoVip™)**

Melan-A, a product of the MART-1 gene, is a differentiation antigen which is expressed in 100% of melanocytes, most melanomas, and 50-60% of melanoma cell lines. It is one of the melanoma antigens recognized by autologous cytotoxic T cells, and as an antigenic target for tumor infiltrating lymphocytes. This antibody also stains Melan-A in normal melanocytes and in the retina. It does not stain normal or tumor tissues from non-melanocyte lineages. This antibody stains positive in cytoplasm of melanocytes and other positive cells.

MDM2



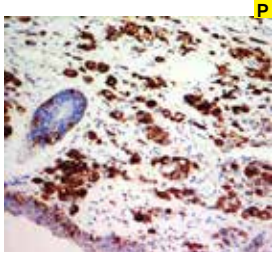
Salivary gland tissue stained with Anti-MDM2 using DAB Chromogen

Clone:	D-7
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Human MDM2
Specificity:	MDM2
Localization:	Nuc & Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB04-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB04-10M**
Xmatrx®	**AXB04-YCD, AXB04-50D**
NanoVip™®	**AXB04-4M**
Concentrated:	**MUB04-UC, MUB04-5UC**
Recommended Positive Control:	**FG-B04M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B04M (Xmatrx & NanoVip™)**

MDM2 is a 90kD ubiquitin ligase for p53 and plays a central role in regulation of the stability of p53. MDM2 binds and inhibits transactivation role played by p53 and overexpression of MDM2 can result in the inactivation of p53 and decrease its tumor suppressor function. MDM2 also acts to stimulate cell proliferation via its induction of transcription factors such as E2F1 and DPI. In addition to p53, MDM2 is involved in processes of cell cycle, apoptosis, and tumorigenesis through interactions with proteins that include retinoblastoma 1 and ribosomal protein L5. Further supporting the role of MDM2 as an oncogene, several human tumor types have been shown to have increased levels of MDM2, including soft tissue sarcomas and osteosarcomas as well as breast tumors.

Melanoma



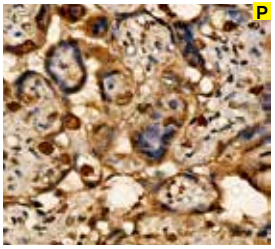
Melanoma tissue stained with Anti-Melanoma using DAB chromogen

Clone:	HMB45
Isotype:	IgG1
Source:	Mouse
Immunogen:	Metastatic malignant melanoma cells
Specificity:	Malignant melanoma
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM001-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM001-10M**
Xmatrx®	**AX001-YCD, AX001-50D**
NanoVip™®	**AX001-4M**
Concentrated:	**MU001-UC, MU001-5UC**
Recommended Positive Control:	**FG-001M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-001M (Xmatrx & NanoVip™)**

Metastatic melanoma is often confused with a variety of poorly differentiated carcinomas, sarcomas, and large cell lymphomas. Clone HMB45 reacts with fetal and neonatal melanocytes but not with normal adult melanocytes and junctional nevus cells but not with intradermal nevi, hence showing specificity for detection of melanocytic tumors. The panel of tumor markers, most commonly used in conjunction with HMB45, for evaluation of melanoma includes S-100 protein LCA, CEA, and EMA, as well as vimentin, an intermediate filament found in both melanomas and sarcomas.

MCM3



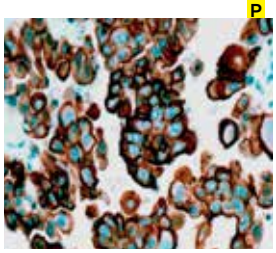
Placenta tissue stained with Anti-MCM3 using DAB chromogen

Clone:	E-8
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human MCM3
Specificity:	MCM3
Localization:	Nuc & Cyt
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD24-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD24-10M**
Xmatrx®	**AXD24-YCD, AXD24-50D**
NanoVip™®	**AXD24-4M**
Concentrated:	**MUD24-UC, MUD24-5UC**
Recommended Positive Control:	**FG-D24M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D24M (Xmatrx & NanoVip™)**

MHC Class I molecules play a pivotal role in the immune system, presenting peptides from the endoplasmic reticulum. They are composed of a heavy alpha chain and beta-2 microglobulin and are expressed on most cells, excluding some like fibroblasts and neurons. Their primary function is to present cytosolic protein fragments to CD8+ T cells, modulating the adaptive immune response and this process involve the ubiquitin-proteasome system, peptide transporters, and chaperone proteins. Defects in this system can facilitate tumor immune evasion and the polymorphisms within MHC Class I genes impact their peptide binding specificity, crucial for transplantation typing.

Mesothelin



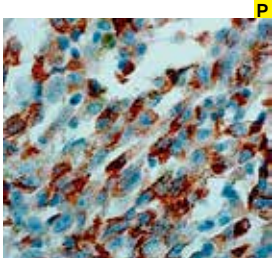
Ovary adenoma tissue stained with anti-Mesothelin using DAB chromogen

Clone:	5B2
Isotype:	IgG1
Source:	Mouse
Immunogen:	Prokaryotic recombinant fusion protein corresponding to approximately 100 amino acids from membrane bound form of mesothelin.
Specificity:	Mesothelin
Localization:	Membrane
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM433-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM433-10M**
Xmatrx®	**AX433-YCD, AX433-50D**
NanoVip™®	**AX433-4M**
Concentrated:	**MU433-UC, MU433-5UC**
Recommended Positive Control:	**FG-433M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-433M (Xmatrx & NanoVip™)**

Mesothelin, a 40kD glycosyl-phosphatidylinositol–linked cell surface glycoprotein, is present on the surface of the mesothelial cells and may be involved in cell adhesion. It is also seen on mesotheliomas, epithelial ovarian carcinomas, and some squamous cell carcinomas. Clone 5B2 reactivity has been seen in epitheloid mesotheliomas and adenocarcinomas of lung, ovary, peritoneum, endometrium, pancreas, stomach and colon to a varying degree. Mesothelin is abundant in normal mesothelial cells from which malignant mesotheliomas and ovarian cystadenocarcinomas are derived. This antibody can be used in conjunction with an antibody to calretinin for evaluation of mesotheliomas.

Melanoma Associated



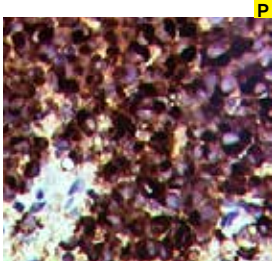
Melanoma tissue stained with Anti-Melanoma using DAB chromogen

Clone:	NKI/C3
Isotype:	IgG1
Source:	Mouse
Immunogen:	Purified membranes of human melanoma cells
Specificity:	NKI/C3 antigen
Localization:	Membrane & Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM077-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM077-10M**
Xmatrx®	**AX077-YCD, AX077-50D**
NanoVip™®	**AX077-4M**
Concentrated:	**MU077-UC, MU077-5UC**
Recommended Positive Control:	**FG-077M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-077M (Xmatrx & NanoVip™)**

The melanoma associated antigen is a formalin resistant glycoprotein with a disulphide dependent configuration that is essential for recognition by the NKI/C3 monoclonal antibody. This antibody recognizes a heterogeneous 25-110 kD glycoprotein that is located mainly in the inner side of membranes of cytoplasmic vesicles in melanoma cells. This antibody reacts with melanoma, nevocellular nevi, carcinoids and medullary carcinomas of the thyroid. It does not react with basal cell carcinoma, brain tissue or brain tumors.

Melanoma Marker



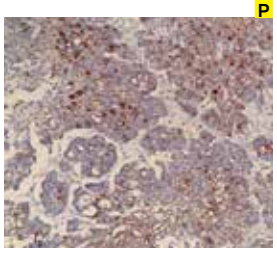
Melanoma tissue stained with Anti-Melanoma Marker using DAB Chromogen

Clone:	A103+T311+HMB45
Isotype:	IgG1+IgG2a+IgG1
Source:	Mouse
Immunogen:	Human Melanoma Marker
Specificity:	Melanoma Marker
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA69-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA69-10M**
Xmatrx®	**AXA69-YCD, AXA69-50D**
NanoVip™®	**AXA69-4M**
Concentrated:	**MUA69-UC, MUA69-5UC**
Recommended Positive Control:	**FG-A69M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A69M (Xmatrx & NanoVip™)**

Melanoma marker is a cocktail antibody that has three melanoma-specific proteins, which include MART1, Tyrosinase and gp100. This cocktail antibody labels melanomas and tumors showing melanocytic differentiation.Melanoma-associated antigen recognized by T cells-1 (MART-1) (also known as Melan-A) is a melanocyte differentiation antigen recognized by autologous cytotoxic T lymphocytes. It is a transmembrane protein which is hydrophobic in nature. Tyrosinase is a coppercontaining metalloglycoprotein that catalyzes several steps in the melanin pigment biosynthetic pathway; the hydroxylation of tyrosine to L-3,4-dihydroxy-phenylalanine (dopa), and the subsequent oxidation of dopa to dopaquinone. This Antibody is a useful marker for melanocytes and melanomas.gp100, also designated ME20-M, ME20-S and PMEL 17, is classified as a melanocyte differentiation antigen and is expressed at low levels in normal cell lines and tissues, but is upregulated in melanocytes.

Mesothelin (Mesothelial Marker)



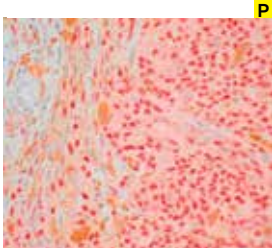
Ovarian carcinoma tissue stained with Anti-Mesothelin using DAB chromogen

Clone:	MSLN/2131
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Recombinant fragment (around aa 273-407) of human Mesothelin (MSLN) protein (exact sequence is proprietary)
Specificity:	Mesothelin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA09-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA09-10M**
Xmatrx®	**AXA09-YCD, AXA09-50D**
NanoVip™®	**AXA09-4M**
Concentrated:	**MUA09-UC, MUA09-5UC**
Recommended Positive Control:	**FG-A09M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A09M (Xmatrx & NanoVip™)**

Mesothelin is a glycosylphosphatidylinositol-linked glycoprotein. It is a differentiation antigen that is present on normal mesothelial cells. The biological function of mesothelin is not known, but it is believed that it plays a role in cell adhesion. Mice raised with the knockout version of the mesothelin gene develop and reproduce normally. Mesothelin is over expressed in many human tumors such as mesothelioma, ovarian and pancreatic adenocarcinoma. Due to its differential expression in carcinoma cells, mesothelin has the potential to be an attractive candidate for carcinoma therapy.

MiTF



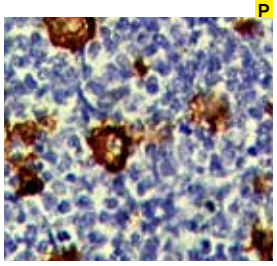
Melanoma tissue stained with Anti-MiTF using AEC chromogen

Clone:	MiTF/A13
Isotype:	IgG1/k
Source:	Mouse
Immunogen:	Human MiTF
Specificity:	MiTF
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM554-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM554-10M**
Xmatrx®	**AX554-YCD, AX554-50D**
NanoVip™®	**AX554-4M**
Concentrated:	**MU554-UC, MU554-5UC**
Recommended Positive Control:	**FG-554M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-554M (Xmatrx & NanoVip™)**

Micropthalmia-associated Transcription Factor (MiTF) is a basic helix-loop-helix leucine zipper transcription factor involved in melanocyte and osteoclast development. Mutations in MiTF cause auditory pigmentary syndromes, such as Waardenburg Syndrome Type II, Type IIa and Tietz Syndrome in humans. MiTF plays a critical role in the differentiation of various cell types such as neural crest-derived melanocytes, mast cells, osteoclasts and optic cup-derived retinal pigment epithelium. This antibody recognizes serine phosphorylated and non-phosphorylated melanocytic isoforms of micropthalmia. It is useful in identifying malignant melanoma, and distinguishing mast cell lesions of myeloid derivation.

Microglia/AIF1



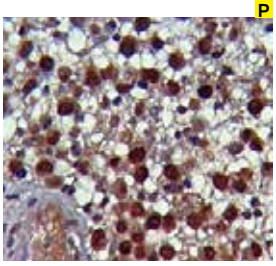
Tonsil tissue stained with Anti-Microglia/AIF1 using DAB Chromogen

Clone:	AIF1/2493
Isotype:	IgG2c
Source:	Mouse
Immunogen:	Human Microglia/AIF1
Specificity:	Microglia/AIF1
Localization:	Cyt & Mem
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA70-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA70-10M**
Xmatrx®	**AXA70-YCD, AXA70-50D**
NanoVip™®	**AXA70-4M**
Concentrated:	**MUA70-UC, MUA70-5UC**
Recommended Positive Control:	**FG-A70M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A70M (Xmatrx & NanoVip™)**

Allograft inflammatory factor 1 (AIF1), also known as IBA1, daintain and Protein G1, is an actin-binding protein. Actinbinding protein that enhances membrane ruffling and RAC activation enhances the actin-bundling activity of LCP1, binds calcium and plays a role in RAC signaling and in phagocytosis.It may play a role in macrophage activation and function. AIF1 also promotes the proliferation of vascular smooth muscle cells and of T-lymphocytes. In an unstimulated state, AIF1 colocalizes with actin, and upon stimulation, translocates to lamellipodia. It is also a marker of human microglia and is expressed by macrophages in injured skeletal muscle. The gene encoding AIF1 resides in the tumor necrosis factor (TNF) cluster of genes, located in the region represented by the human major histocompatibility complex (MHC).

MiTF



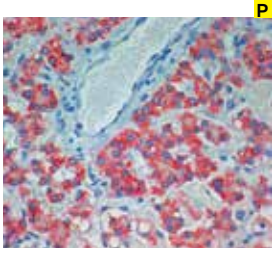
Tonsil tissue stained with Anti-MiTF using DAB Chromogen

Clone:	C5/D5
Isotype:	IgG1, kappa
Source:	Mouse
Immunogen:	Human MiTF
Specificity:	MiTF
Localization:	Nucleus Elegance
Pre-treatment:	EZ-AR2
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA63-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA63-10M**
Xmatrx®	**AXA63-YCD, AXA63-50D**
NanoVip™®	**AXA63-4M**
Concentrated:	**MUA63-UC, MUA63-5UC**
Recommended Positive Control:	**FG-A63M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A63M (Xmatrx & NanoVip™)**

MiTF (microphthalmia-associated transcription factor) is a melanocytic nuclear protein with basic helix-loop-helix (bHLH), leucine-zipper domains. It can directly associate with DNA as a homodimer and plays a major role as a master regulator in melanocyte proliferation, osteoclastogenesis and RPE (Retinal Pigment Epithelium) differentiation. The expression of MiTF is seen in melanocytes, osteoclasts, mast cells and heart. It functions as a melanoma oncogene in humans and mutations in the associated gene causes Waardenburg Syndrome type II in humans.

Mitochondrial Antigen



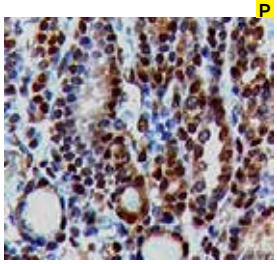
Fetal Liver tissue stained with Anti-Mitochondrial Ag using AEC chromogen

Clone:	113-1
Isotype:	IgG1
Source:	Mouse
Immunogen:	Raji Burkitt's lymphoma cells
Specificity:	Mitochondria
Localization:	Cytoplasm
Pre-treatment:	EZ-AR1/EZ-AR2
Manual/i6000:	HK521-XAK/HK522-XAK
Xmatrx:	HX031-YCD/HX032
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM213-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM213-10M**
Xmatrx®	**AX213-YCD, AX213-50D**
NanoVip™®	**AX213-4M**
Concentrated:	**MU213-UC, MU213-5UC**
Recommended Positive Control:	**FG-213M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-213M (Xmatrx & NanoVip™)**

Monoclonal antibody 113-1 recognizes a 60 kD antigen of human mitochondria. This marker may be useful in identification of mitochondria in cells, tissues, and biochemical preparations. It produces a “spaghetti-like” staining pattern in the cytoplasm of human cells and may be used as a marker of biliary cirrhosis. The antibody stains mitochondria in the cytoplasm of positive cells.

MLH-1



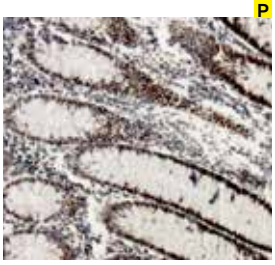
Colon tissue stained with Anti-MLH-1 using DAB Chromogen

Clone:	MLH1/6284R
Isotype:	IgG, kappa
Source:	Rabbit
Immunogen:	Human MLH-1
Specificity:	MLH-1
Localization:	Nucleus
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ANC24-5M**
Ready-to-Use (Automated):	
***i*6000™**	**ANC24-10M**
Xmatrx®	**AYC24-YCD, AYC24-50D**
NanoVip™®	**AYC24-4M**
Concentrated:	**NUC24-UC, NUC24-5UC**
Recommended Positive Control:	**FG-C24N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C24N (Xmatrx & NanoVip™)**

MutL homolog 1(MLH1) is a protein in humans that is encoded by the MLH1 gene. MLH1 protein is one component of a system of seven DNA mismatch repair proteins that coordinate and work in sequential steps to initiate repair of DNA mismatches in humans. The MLH1 gene is often mutated in hereditary nonpolyposis colon carcinoma (HNPCC). It also plays a role in meiotic recombination. Defects in mismatch repair are found in around 13% of colorectal carcinomas and are much more frequently due to deficiency of MLH1 than deficiencies of other DNA mismatch repair proteins.

MLH1



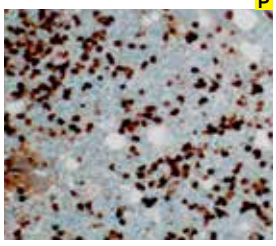
Colon tissue stained with Anti-MLH-1 using DAB Chromogen

Clone:	ES05
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human MLH-1
Specificity:	MLH-1
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM703-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM703-10M**
Xmatrx®	**AX703-YCD, AX703-50D**
NanoVip™®	**AX703-4M**
Concentrated:	**MU703-UC, MU703-5UC**
Recommended Positive Control:	**FG-703M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-703M (Xmatrx & NanoVip™)**

MutS homologue 1 (MSH1) is a member of Mutator S (MutS) DNA mismatch repair protein family. MSH1 binds to DNA mismatches to maintain the integrity of genetic information, initiate DNA repair by forming heterodimer complexes with MSH2, MSH6 and PMS2. Strand misalignment can occur during DNA replication, resulting in microsatellirte repeats, referred to as microsattelite instability (MSI). These Strand misalignments in DNA repair pathways are associated with human carcinogenesis.

MMP-9



Bone marrow stained with anti-MMP-9 using DAB chromogen

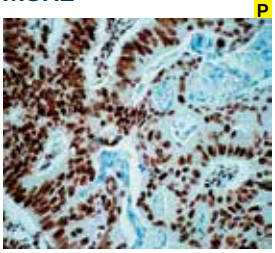
Clone:	EP127
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues of human MMP-9 protein
Specificity:	Human MMP-9
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN816-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN816-10M**
Xmatrx®	**AY816-YCD, AY816-50D**
NanoVip™®	**AY816-4M**
Concentrated:	**NU816-UC, NU816-5UC**
Recommended Positive Control:	**FG-816N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-816N (Xmatrx & NanoVip™)**

Matrix metalloproteinases (MMPs), a family of peptidase enzymes, plays a critical role in degradation of extracellular matrix components in normal physiological processes, such as embryonic development, reproduction, and tissue remodeling, as well as in disease processes.MMP-9, also designated as 92-kDa Type IV Collagenase or gelatinase B is a member of MMPs, which is produced as a 92-kDa pro-enzyme by neutrophils and macrophages as a normal constituent and released into the extracellular environment after activation in inflammatory tissues. MMP-9 is predominantly expressed in neutrophils, macrophages, mast cells and stromal cells. The expression levels of MMP-9 in tumors are elevated compared with the corresponding normal tissues in a variety of carcinoma types, including breast, colon, gastric and nasopharyngeal carcinomas.

MSH2

P



Colon carcinoma tissue stained with Anti-MSH2 using DAB chromogen

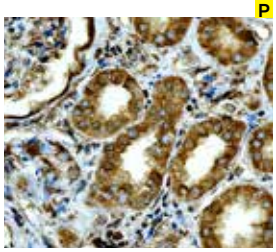
Clone:	SP46
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to internal region of human MSH2
Specificity:	Human MSH2
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN743-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN743-10M**
Xmatrx®	**AY743-YCD, AY743-50D**
NanoVip™®	**AY743-4M**
Concentrated:	**NU743-UC, NU743-5UC**
Recommended Positive Control:	**FG-743N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-743N (Xmatrx & NanoVip™)**

MutS homologue 2 (MSH2) is a DNA mismatch repair protein that belongs to the MutS family. MSH2 forms two different heterodimers: MutS alpha (MSH2-MSH6) and MutS beta (MSH2-MSH3), which bind to DNA mismatches thereby initiating DNA repair. MSH2 is involved in DNA repair as a mismatch repair protein, and mutations of MSH2 are found in approximately 50% of inherited non polyposis colorectal carcinoma (HNPCC) (Lynch syndrome) cases. HNPCC is an autosomal, dominantly inherited disease associated with marked increase in carcinoma susceptibility.

MTAP

P



Kidney tissue with MTAP using DAB chromogen

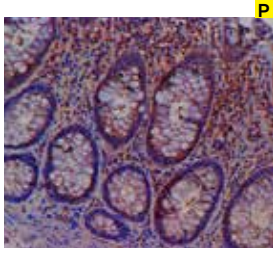
Clone:	MTAP/1813
Isotype:	IgG2b, kappa
Source:	Mouse
Immunogen:	Human MTAP
Specificity:	MTAP
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD03-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD03-10M**
Xmatrx®	**AXD03-YCD, AXD03-50D**
NanoVip™®	**AXD03-4M**
Concentrated:	**MUD03-UC, MUD03-5UC**
Recommended Positive Control:	**FG-D03M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D03M (Xmatrx & NanoVip™)**

MTAP (S-methyl-5'-thioadenosine phosphorylase) is an enzyme that plays a major role in polyamine metabolism and is essential for salvage pathway. It catalyzes the cleavage of methylthioadenosine (MTA) into salvageable intermediates including adenine and 5-methylthioribose-1-phosphate. The expression of MTAP is seen in all normal cells but it is deficient in various carcinomas such as primary leukemia, lung carcinoma, melanoma, bladder carcinoma, gliomas and breast carcinoma.

MSH6 44

P



Colon tissue with MSH6 44 using DAB chromogen

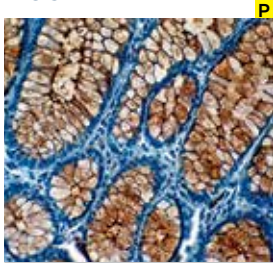
Clone:	44
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human MSH6 44
Specificity:	MSH6 44
Localization:	Nuc/Cyt
Pre-treatment:	EZ-AR1
Manual/i6000:	HK521-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AM999-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM999-10M**
Xmatrx®	**AX999-YCD, AX999-50D**
NanoVip™®	**AX999-4M**
Concentrated:	**MU999-UC, MU999-5UC**
Recommended Positive Control:	**FG-999M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-999M (Xmatrx & NanoVip™)**

The MSH6 protein is a member of the Mutator S (MutS) family, involved in the DNA damage repair. It contains the Walker-A/B adenine nucleotide binding motif, which is highly conserved in all the MutS homologs. MSH2/MSH6 (MutS-alpha) is involved primarily in base substitution and small-loop mismatch repair. Damage to DNA, damage to nuclear precursors, errors during DNA replication, and formations of intermediates during genetic recombination can cause mismatched base pairs. Mutations in MSH6 have been implicated in hereditary nonpolyposis colon carcinoma and several other carcinomas such as ovarian, stomach and endometrial carcinoma

MUC4

P



Colonic mucosa tissue stained with Anti-MUC4 using DAB chromogen

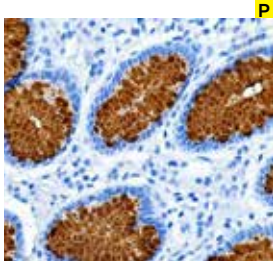
Clone:	1G8
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human MUC4
Specificity:	MUC4
Localization:	Cytoplasm & Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM455-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM455-10M**
Xmatrx®	**AX455-YCD, AX455-50D**
NanoVip™®	**AX455-4M**
Concentrated:	**MU455-UC, MU455-5UC**
Recommended Positive Control:	**FG-455M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-455M (Xmatrx & NanoVip™)**

MUC4 is a membrane-associated protein of the mucin (MUC) gene family, encoded by a gene on chromosome 3q29 and produced by epithelial cells as a heterodimer. The MUC4 protein is thought to play a protective role for vulnerable epithelia, particularly in the airway, eye, female reproductive tract, and mammary gland. Alterations in MUC4 expression have been observed in association with a variety of inflammatory and neoplastic states; reduction or loss has been reported in non-small cell lung carcinoma, hyperplastic polyps of the colon, and serrated colon adenomas, while overexpression of the MUC4/Sialomucin complex (SMC) has been identified in malignant progression of mammary tumors in humans.

MUC5AC

P



Gastro-intestinal tissue stained with Anti-MUC5AC using DAB chromogen

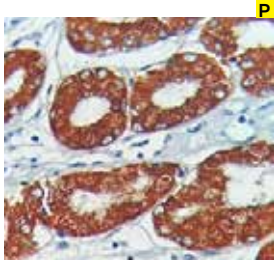
Clone:	45M1
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human MUC5AC
Specificity:	MUC5AC
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM456-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM456-10M**
Xmatrx®	**AX456-YCD, AX456-50D**
NanoVip™®	**AX456-4M**
Concentrated:	**MU456-UC, MU456-5UC**
Recommended Positive Control:	**FG-456M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-456M (Xmatrx & NanoVip™)**

Mucins are high molecular weight glycoproteins with 80% carbohydrates and 20% core protein. Gastric Mucin 5AC antigen is found in columnar mucus cells of surface gastric epithelium and in goblet cells of the fetal and precarcinomaous colon but not in normal colon. Resurgence of gastric mucin during colonic carcinogenesis is suggestive of either re-expression of the peptide core of gastric mucin in the adult colon or due to changes in the glycosylation pattern of mucin, which expose the hidden Mucin 5AC antigen.

MUC6

P



Stomach tissue stained with Anti-MUC6 using DAB Chromogen

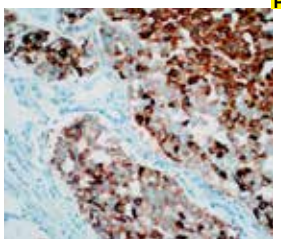
Clone:	SPM598
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human MUC6
Specificity:	MUC6
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC11-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC11-10M**
Xmatrx®	**AXC11-YCD, AXC11-50D**
NanoVip™®	**AXC11-4M**
Concentrated:	**MUC11-UC, MUC11-5UC**
Recommended Positive Control:	**FG-C11M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C11M (Xmatrx & NanoVip™)**

MUC 6 also designated Mucin 6 and gastric mucin, is a high molecular weight glycoprotein that plays a major role in epithelial cyto-protection of gastrointestinal tract from acid, proteases, pathogenic microorganisms, and mechanical trauma. It is expressed in various tissues such as the pyloric glands of the antrum, bronchial epithelium and in the Miller ducts of the endocervix and urethral epithelium. Muc6 antibody is found to be useful for differentiating fetal, precarcinomaous and carcinomaous colonic mucosa.

Mucin 1 (MUC1)

P



Breast carcinoma tissue stained with anti-MUC1 using DAB chromogen

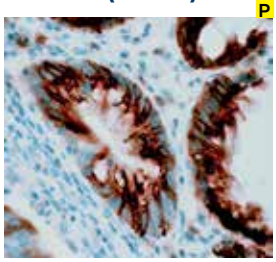
Clone:	EP85
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues on the C-terminus of of human MUC1 protein
Specificity:	Human MUC1
Localization:	Cytoplasm / Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN813-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN813-10M**
Xmatrx®	**AY813-YCD, AY813-50D**
NanoVip™®	**AY813-4M**
Concentrated:	**NU813-UC, NU813-5UC**
Recommended Positive Control:	**FG-813N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-813N (Xmatrx & NanoVip™)**

MUC1 is expressed in many types of epithelial cells in the gastrointestinal tract, lung, breast, pancreas and genitourinary tract. MUC1 is also detected in activated and unactivated T-cells. In some tumors derived from epithelial cells, MUC1 expression is associated with tumor type and invasiveness. MUC1 expression has been correlated with invasive growth of ductal carcinomas (IDC) in the pancreas and cholangiocarcinomas in the liver. MUC2 expression has been associated with the intraductal papillary mucinous tumors of the pancreas, a noninvasive carcinoma. Additionally, MUC1 antibody aids in the prediction of the aggressiveness of carcinomas of the breast, stomach, colon, ampulla of Vater and renal cell carcinoma.

Mucin 2 (MUC2)

P



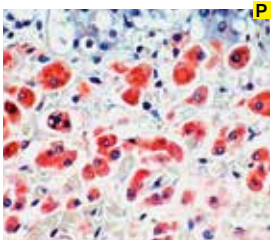
Colon stained with Anti-Mucin 2 using DAB chromogen

Clone:	CCP58
Isotype:	IgG1
Source:	Mouse
Immunogen:	Synthetic human MUC2 (MI-29) peptide (VNTR region)
Specificity:	MUC2
Localization:	Cytoplasm
Pre-treatment:	EZ-AR1
Manual/i6000:	HK521
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AM358-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM358-10M**
Xmatrx®	**AX358-YCD, AX358-50D**
NanoVip™®	**AX358-4M**
Concentrated:	**MU358-UC, MU358-5UC**
Recommended Positive Control:	**FG-358M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-358M (Xmatrx & NanoVip™)**

Mucins are a group of high molecular weight, highly glycosylated proteins expressed in normal and carcinogenic colon. MUC2 is a 520-kD glycoprotein of the gastrointestinal tract. The core of the glycoprotein consists of a variable number of tandem repeats of a 23 amino acid sequence. Mucin 2 is found in normal epithelial cells of the colon or in colon carcinoma. MUC2 glycoprotein is expressed in mucinous tumors but not in serous tumors. This antibody stains positive for colon gastric carcinoma cells, normal intestine, colon and salivary glands, and some human colon carcinoma cell lines (LS174T).

Multi-Drug Resistance Marker (P-Glycoprotein)



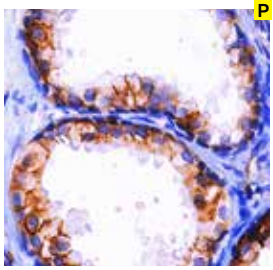
Adrenal gland tissue stained with Anti-multi-drug resistance marker using AEC chromogen

Clone:	MDR88
Isotype:	IgG1 Kappa
Source:	Mouse
Immunogen:	Recombinant P-glycoprotein containing four tandem repeats of the amino acid sequence 1096 through 1252, once of the cytoplasmic domains near the C-terminus
Specificity:	Multi-Drug Resistance Marker
Localization:	Membrane & Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM391-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM391-10M**
Xmatrx®	**AX391-YCD, AX391-50D**
NanoVip™®	**AX391-4M**
Concentrated:	**MU391-UC, MU391-5UC**
Recommended Positive Control:	**FG-391M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-391M (Xmatrx & NanoVip™)**

Multi-Drug Resistance Marker (P-Glycoprotein) is a 170 kD cell membrane protein of the multi-drug resistance gene, MDR-1. Studies have linked the presence of P-Glycoprotein with resistance to a wide variety of chemotherapeutic agents. P-Glycoprotein is associated with an afflux pump that actively removes drug from the cell, thereby conferring resistance to a variety of drugs.

MHC Class I



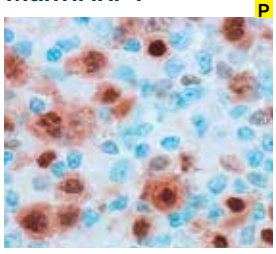
Liver tissue stained with Anti-MHC Class1 using DAB Chromogen

Clone:	F-3
Isotype:	IgG2a, kappa
Source:	Mouse
Immunogen:	Human MHC Class I
Specificity:	MHC Class I
Localization:	Membrane
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD57-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD57-10M**
Xmatrx®	**AXD57-YCD, AXD57-50D**
NanoVip™®	**AXD57-4M**
Concentrated:	**MUD57-UC, MUD57-5UC**
Recommended Positive Control:	**FG-D57M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D57M (Xmatrx & NanoVip™)**

MHC Class I molecules play a pivotal role in the immune system, presenting peptides from the endoplasmic reticulum. They are composed of a heavy alpha chain and beta-2 microglobulin and are expressed on most cells, excluding some like fibroblasts and neurons. Their primary function is to present cytosolic protein fragments to CD8+ T cells, modulating the adaptive immune response and this process involve the ubiquitin-proteasome system, peptide transporters, and chaperone proteins. Defects in this system can facilitate tumor immune evasion and the polymorphisms within MHC Class I genes impact their peptide binding specificity, crucial for transplantation typing.

Mum1/IRF4



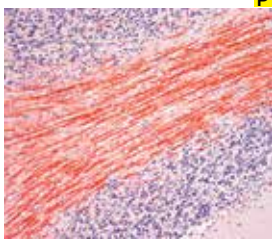
Hodgkin's lymph tissue stained with Anti-Mum1/IRF4 using DAB chromogen

Clone:	SP114
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide near C-terminus of human MUM1/IRF4
Specificity:	Human Mum1/IRF4
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN750-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN750-10M**
Xmatrx®	**AY750-YCD, AY750-50D**
NanoVip™®	**AY750-4M**
Concentrated:	**NU750-UC, NU750-5UC**
Recommended Positive Control:	**FG-750N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-750N (Xmatrx & NanoVip™)**

MUM1/IRF4 protein is a member of the interferon regulatory factor (IRF) family of transcriptional factors initially described as downstream regulators of interferon signaling. The quantity of this factor varies within the hematopoietic system in a lineage and stage-specific way. It is considered to be a key regulator of several steps in lymphoid, myeloid, and dendritic cell differentiation and maturation. MUM1/IRF4 expression is observed in many lymphoid and myeloid malignancies, and may be a promising target for the treatment of some of these neoplasms.

Myelin Basic Protein



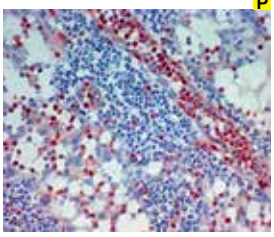
Cerebellum tissue stained with Anti-Myelin basic protein using AEC chromogen

Clone:	MBP88
Isotype:	IgG1
Source:	Mouse
Immunogen:	This antibody is the fusion product of SP/2 myeloma cells and the splenocytes from an A/J mouse immunized with peptide of Myelin Basic Protein
Specificity:	Myelin Basic Protein
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM380-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM380-10M**
Xmatrx®	**AX380-YCD, AX380-50D**
NanoVip™®	**AX380-4M**
Concentrated:	**MU380-UC, MU380-5UC**
Recommended Positive Control:	**FG-380M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-380M (Xmatrx & NanoVip™)**

Myelin Basic Protein (MBP), a single-chain, flexible polypeptide of about 18.5 kD is localized in both the compact myelin sheath and myelin ovoids. MBP has not been demonstrated in rough endoplasmic reticulum, lysosomes, or any other cytoplasmic organelles. MBP can be used as a marker for oligodendrocytes, Schwann cells and malignant Schwannomas. This antibody is useful in defining some of the elements in the catabolism of myelin in multiple sclerosis, experimental encephalomyelitis, and other diseases of the central nervous system. This antibody stains Myelin Basic Protein.

Myeloid Specific Antigen



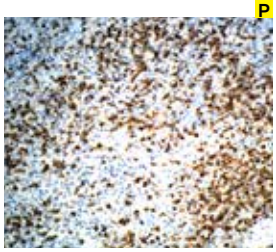
Lymph node stained with Anti-Myeloid Specific Antigen using AEC chromogen

Clone:	BM-1
Isotype:	IgG1
Source:	Mouse
Immunogen:	Nuclei from human peripheral blood mononuclear cells
Specificity:	Myeloid Specific Antigen
Localization:	Cytoplasm @ Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522
Xmatrx:	HX032
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM164-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM164-10M**
Xmatrx®	**AX164-YCD, AX164-50D**
NanoVip™®	**AX164-4M**
Concentrated:	**MU164-UC, MU164-5UC**
Recommended Positive Control:	**FG-164M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-164M (Xmatrx & NanoVip™)**

This 183 kD myeloid specific antigen is a DNA binding protein expressed in early precursor myeloid cells. Monoclonal antibodies BM-1 and BM-2 are useful in the identification of early precursor and mature forms of human myeloid cells, respectively. The antigens are also expressed in granulocytic sarcomas and myeloid leukemias, myeloid precursor cells of bone marrow, scattered cells in the peripheral cortex of the thymus, granulocytes, granulocytic sarcomas, acute myelogenous leukemia (AML), chronic myelogenous leukemias and myelomonocytic leukemias.

MYELOPEROXIDASE (MPO)



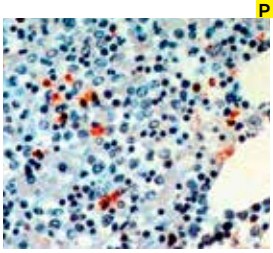
Spleen tissue with Anti-Myeloperoxidase (MPO) using DAB chromogen

Clone:	Polyclonal
Isotype:	IgG1
Source:	Rabbit
Immunogen:	Human MYELOPEROXIDASE (MPO)
Specificity:	MYELOPEROXIDASE (MPO)
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR496-5R**
Ready-to-Use (Automated):	
***i*6000™**	**AR496-10R**
Xmatrx®	**AW496-YCD, AW496-50D**
NanoVip™®	**AW496-4M**
Concentrated:	**PU496-UP, PU496-5UP**
Recommended Positive Control:	**FG-496P (Manual & i6000)**
Recommended Microchamber Slide:	**FB-496P (Xmatrx & NanoVip™)**

Myeloperoxidase is a heme protein used by granulocytes producing hypohalous acids central during phagocytosis of microbial particles engulfed. Myeloperoxidase (MPO) expression has been observed by strong immunoreactivity to anti Myeloperoxidase antibodies at all stages of maturation in mormal cells of myeloid origin, and and in a variety of myeloproliferative disorders of myeloid cells. Erythroid precursors, megakaryocytes, lymphoid cells, mast cells, and plasma cells are nonreactive for anti Myeloperoxidase antibodies.

Myeloid Specific Antigen



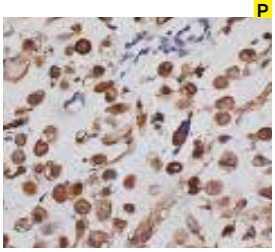
Bone marrow tissue stained with Anti-Myeloid Specific Antigen using Fast Red chromogen

Clone:	BM-3
Isotype:	IgG1
Source:	Mouse
Immunogen:	Nuclei from pokeweed mitogen stimulated human peripheral blood lymphocytes
Specificity:	Myeloid Specific Antigen
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM216-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM216-10M**
Xmatrx®	**AX216-YCD, AX216-50D**
NanoVip™®	**AX216-4M**
Concentrated:	**MU216-UC, MU216-5UC**
Recommended Positive Control:	**FG-216M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-216M (Xmatrx & NanoVip™)**

BM-3 is an early marker of myeloid differentiation. BM-3 recognizes a 13 kD myeloid specific antigen. The BM-3 antibody along with BM-1 and BM-2, provides the capacity to stain early precursor and mature forms of human myeloid cells. It is expressed during the early phases of myeloid differentiation. This antigen is present in human granulocytes, monocytes, and myeloid precursor cells. It has no reactivity with any other cell type in human tissues. This antibody stains cytoplasm in human granulocytes (98%) and monocytes (80%) residing in lymphoid and non-lymphoid tissues in formalin-fixed, paraffin-embedded tissue sections, bone marrow smears or blood smears.

MYOD1



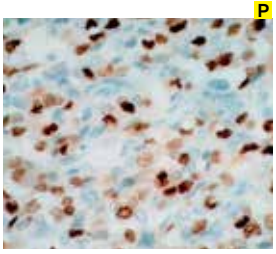
RMS tissue stained with Anti-MYOD1 IHC stain on using DAB chromogen

Clone:	rMYD712
Isotype:	IgG1
Source:	Mouse
Immunogen:	Recombinant full-length human MyoD1 protein
Specificity:	MYOD1
Localization:	Nucleus
Pre-treatment:	EZ-AR1
Manual/i6000:	HK521-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AMA21-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA21-10M**
Xmatrx®	**AXA21-YCD, AXA21-50D**
NanoVip™®	**AXA21-4M**
Concentrated:	**MUA21-UC, MUA21-5UC**
Recommended Positive Control:	**FG-A21M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A21M (Xmatrx & NanoVip™)**

MyoD1, known as myogenic differentiation 1 or myoblast determination protein 1, plays a major role in regulating muscle differentiation in animals. MyoD1 (45kDa) is a part of the family of myogenic regulatory factors that also include Myf5, Myf6 and Myogenin. MyoD1 is a transcription factor that promotes genes that permit myoblast proliferation. Mice born carrying mutant versions of non-functional Myf5 and MyoD1 are unable to develop any skeletal muscle and die shortly after birth. This implies the importance of MyoD1 as a myogenic marker. MyoD1 is responsible for mesodermal cells to commit to a myogenic lineage and maintaining this state. They are also responsible for repairing muscles after damage from activity or trauma. MyoD1 arrests the cell cycle in terminally differentiated myoblasts by regulating Cyclin and Cyclin D1.

Myogenin



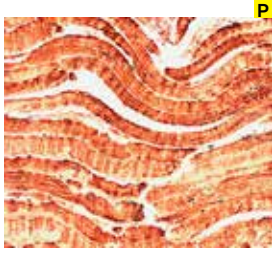
Rhabdomysarcoma stained with anti-Human Myogenin using DAB chromogen

Clone:	EP162
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues in human Myogenin
Specificity:	Human Myogenin
Localization:	Nuclues
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN789-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN789-10M**
Xmatrx®	**AY789-YCD, AY789-50D**
NanoVip™®	**AY789-4M**
Concentrated:	**NU789-UC, NU789-5UC**
Recommended Positive Control:	**FG-789N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-789N (Xmatrx & NanoVip™)**

Myogenic factors are transcription factors consisting of an amino acid rich region and a helix-loop-helix (HLH) structure, which can promote muscle development and maintain muscle-specific gene expression by transactivation. Myogenin, one of the myogenic regulatory factors, plays a key role in determining the commitment and differentiation of primitive mesenchymal cells into skeletal muscle. The expression of Myogenin is restricted to cells of skeletal muscle origin, but it is not detected in adult skeletal muscles. It is therefore considered to be an extremely reliable and specific marker for diagnosing rhabdomyosarcomas.

Myoglobin



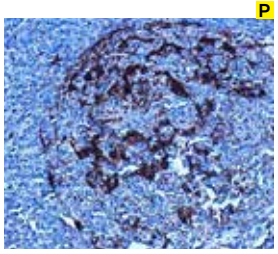
Skeletal Muscle stained with Anti-Myoglobin using DAB chromogen

Clone:	MG-1
Isotype:	IgG1
Source:	Mouse
Immunogen:	Purified human skeletal muscle myoglobin
Specificity:	Myoglobin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM012-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM012-10M**
Xmatrx®	**AX012-YCD, AX012-50D**
NanoVip™®	**AX012-4M**
Concentrated:	**MU012-UC, MU012-5UC**
Recommended Positive Control:	**FG-012M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-012M (Xmatrx & NanoVip™)**

Myoglobin functions as a cellular oxygen storage mechanism with some contribution to oxygen transport into the cell. The molecular mass of human myoglobin is 17.8 kD. Myoglobin is present exclusively in striated muscle, with the single exception of chicken gizzard smooth muscle. It is a valuable tool used in distinguishing rhabdomyosarcomas from other soft tissue tumors. After muscle tissue damage such as crush injuries, burns, myocardial infarction and muscle diseases, increased levels of myoglobin are found in the blood and urine. This antibody stains positive in the cytoplasm of muscle cells.

Myogenin



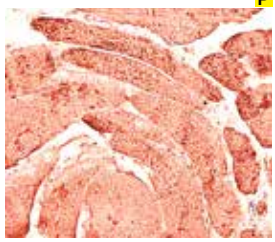
Muscle tissue with Myogenin using DAB chromogen

Clone:	MGN185
Isotype:	IgG1, kappa
Source:	Mouse
Immunogen:	Human Myogenin
Specificity:	Myogenin
Localization:	Intercellular/Nucleus
Pre-treatment:	EZ-AR1
Manual/i6000:	HK521-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AM987-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM987-10M**
Xmatrx®	**AX987-YCD, AX987-50D**
NanoVip™®	**AX987-4M**
Concentrated:	**MU987-UC, MU987-5UC**
Recommended Positive Control:	**FG-987M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-987M (Xmatrx & NanoVip™)**

Myogenin is a muscle-specific transcription factor that is responsible for the normal development of muscle fibers. Myf4 is part of the Myogenic regulatory factors family with MyoD, Myf5, and MRF4. This family of proteins contains a conserved DNA binding domain that binds to the E box DNA motif allowing regulation of myogenesis. Myogenin (Myf4) has also been known to transform non-muscle cells to muscle cells. Mice with homozygous null Myogenin (Myf4) gene tend to die soon after birth with severely underdeveloped muscles, therefore highlighting the importance of Myogenin (Myf4) in musculoskeletal development. Myogenin being muscle-specific can be used to identify muscle cells, or probes can be used to identify muscle cell precursors.

Myoglobin



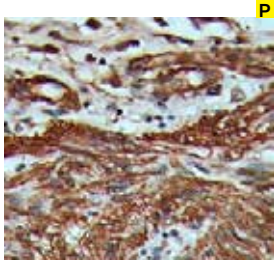
Skeletal muscle stained with Anti-Myoglobin using AEC chromogen

Clone:	Polyclonal
Source:	Rabbit
Immunogen:	Highly purified human myoglobin
Specificity:	Myoglobin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR012-5R**
Ready-to-Use (Automated):	
***i*6000™**	**AR012-10R**
Xmatrx®	**AW012-YCD, AW012-50D**
NanoVip™®	**AW012-4M**
Concentrated:	**PU012-UP, PU012-5UP**
Recommended Positive Control:	**FG-012P (Manual & i6000)**
Recommended Microchamber Slide:	**FB-012P (Xmatrx & NanoVip™)**

Myoglobin functions as a cellular oxygen storage mechanism with some contribution to oxygen transport into the cell. The molecular mass of human myoglobin is 17.8 kD. Myoglobin is present exclusively in striated muscle, with the single exception of chicken gizzard smooth muscle. Since myoglobin is the only striated muscle-specific antigen, it is a valuable tool used in distinguishing rhabdomyosarcomas from other soft tissue tumors. After muscle tissue damage such as crush injuries, burns, myocardial infarction and muscle diseases, increased levels of myoglobin are found in the blood and urine. This antibody reacts with human myoglobin.

Myosin Heavy chain



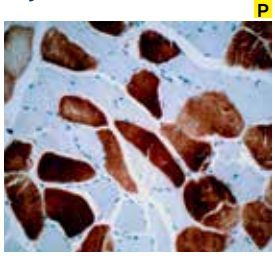
Colon tissue stained with Anti-Myosin Heavy chain using DAB Chromogen

Clone:	MYH11/4337R
Isotype:	IgG, kappa
Source:	Rabbit
Immunogen:	Human Myosin Heavy chain
Specificity:	Myosin Heavy chain
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ANC62-5M**
Ready-to-Use (Automated):	
***i*6000™**	**ANC62-10M**
Xmatrx®	**AYC62-YCD, AYC62-50D**
NanoVip™®	**AYC62-4M**
Concentrated:	**NUC62-UC, NUC62-5UC**
Recommended Positive Control:	**FG-C62N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C62N (Xmatrx & NanoVip™)**

Smooth Muscle-Myosin Heavy Chain (SM-MHC) is a structural protein located in the cytoplasm which is a major component of the contractile apparatus of the smooth muscle cells, as well as a myoepithelium-associated protein. The antibody to smooth muscle myosin heavy chain stains myoepithelial cells which help in distinguish benign breast lesions and carcinoma in situ from invasive tumors. SM-MHC also stains intact myoepithelial cell (MEC) layers in bronchioloalveolar lesions which is very helpful in differentiating benign and malignant tumors.

Myosin, Skeletal Muscle



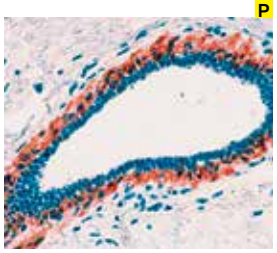
Skeletal muscle tissue stained with Anti-Myosin using DAB chromogen

Clone:	MY-32
Isotype:	IgG1
Source:	Mouse
Immunogen:	Mouse muscle myosin
Specificity:	Skeletal-muscle myosin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM109-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM109-10M**
Xmatrx®	**AX109-YCD, AX109-50D**
NanoVip™®	**AX109-4M**
Concentrated:	**MU109-UC, MU109-5UC**
Recommended Positive Control:	**FG-109M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-109M (Xmatrx & NanoVip™)**

Myosin along with actin forms the fundamental contractile unit of muscle, the myofibril. It has a molecular mass of 500 kD and is comprised of two identical heavy chains (200 kD each) and four light chains (15-20 kD). Monoclonal antibody MY-32 to fast-twitch skeletal myosin may be used for detecting cross-striated muscle differentiation in tumors. This antibody does not stain human or animal cardiac or smooth-muscle myosin. Staining of fast-twitch (type II) isomyosin molecules has been demonstrated on human skeletal muscle. The antibody stains human, rabbit, rat, mouse, bovine, chicken, and guinea pig skeletal myosin.

Myosin Heavy Chains, Smooth Muscle



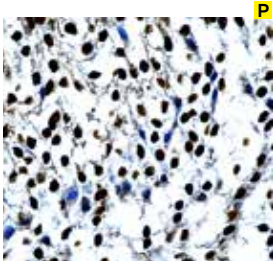
Myoepithelial cell tissue stained with Anti-Myosin heavy chains using AEC chromogen

Clone:	SMMS.1
Isotype:	IgG1
Source:	Mouse
Immunogen:	Crude human uterus caldesmon
Specificity:	Smooth muscle myosin heavy chains
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM331-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM331-10M**
Xmatrx®	**AX331-YCD, AX331-50D**
NanoVip™®	**AX331-4M**
Concentrated:	**MU331-UC, MU331-5UC**
Recommended Positive Control:	**FG-331M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-331M (Xmatrx & NanoVip™)**

SMMS.1 is approximately 204 kD and is considered to be the marker for smooth muscle cell phenotypes. It has been designed for specific localization of both vascular and visceral smooth muscle. Monoclonal antibody to smooth muscle myosin heavy chains in combination with monoclonal antibodies to calponin and heavy caldesmon may be used to study the differences between benign, in-situ lesions and invasive carcinomas. Monoclonal antibody stains smooth muscle myosin heavy chains in vascular and visceral smooth muscle, myoepithelial cells in normal and benign human mammary gland and certain stromal myofibroblasts.

Steroidogenic Factor 1



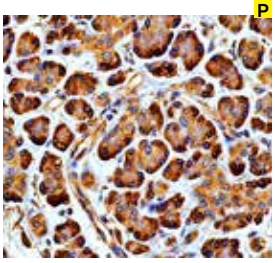
Adrenal cortical carcinoma tissue stained with Anti-Steroidogenic Factor 1 using DAB chromogen

Clone:	NR5A1/3397
Isotype:	IgG2b, kappa
Source:	Mouse
Immunogen:	Human Steroidogenic Factor 1
Specificity:	Steroidogenic Factor 1
Localization:	Nuclear
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD02-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD02-10M**
Xmatrx®	**AXD02-YCD, AXD02-50D**
NanoVip™®	**AXD02-4M**
Concentrated:	**MUD02-UC, MUD02-5UC**
Recommended Positive Control:	**FG-D02M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D02M (Xmatrx & NanoVip™)**

Steroidogenic Factor 1 (SF-1) also designated Nuclear Receptor Subfamily 5 Group A Member 1 (NR5A1), Adrenal 4 Binding Protein (AD4BP), HSF-1, is a transcription factor belongs the fushi tarazu factor-1 (FTZ-F1) subfamily of orphan nuclear receptors. It regulates multiple genes involved in the organ development and differentiation of the endocrine system. SF-1 plays an important role in fetal development of the hypothalamus, pituitary gland, gonads, and the adrenal gland. Its expression is observed in all steroidogenic tissues, including the adrenal cortex, testicular Sertoli cells, and Leydig cells, ovarian theca/interstitial cells, granulosa cells, hypothalamus, and anterior pituitary. SF1 is highly valuable IHC marker to determine the adrenocortical origin of an adrenal mass and differential diagnosis of endometrioid tumors with carcinoid of the ovary.

MRP3



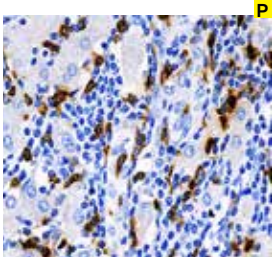
Pancreatic Carcinoma tissue stained with Anti-MRP3 using DAB Chromogen

Clone:	ABCC3/2971
Isotype:	IgG1, Kappa
Source:	Mouse
Immunogen:	Human MRP3
Specificity:	MRP3
Localization:	Mem & Cyt
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD53-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD53-10M**
Xmatrx®	**AXD53-YCD, AXD53-50D**
NanoVip™®	**AXD53-4M**
Concentrated:	**MUD53-UC, MUD53-5UC**
Recommended Positive Control:	**FG-D53M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D53M (Xmatrx & NanoVip™)**

MRP3 (Multidrug Resistance-Associated Protein 3) belongs to the MRP subfamily within the ATP-binding cassette (ABC) transporter superfamily, plays a pivotal role in the efflux of organic anions, such as bile acids and anti-carcinoma drugs, from the liver and small intestine into the bloodstream. This function contributes to the development of multi-drug resistance. MRP3 is expressed in various organs, including the liver, gallbladder, small intestine, colon, kidney, and adrenal gland. Elevated levels of MRP3 expression have been observed in liver diseases and specific types of carcinoma, including hepatocellular carcinoma, ovarian carcinoma, and acute lymphoblastic leukaemia. Overexpression of MRP3 has been identified as a prognostic factor in acute lymphoblastic leukaemia (ALL) and adult acute myeloid leukaemia (AML).

Myeloperoxidase



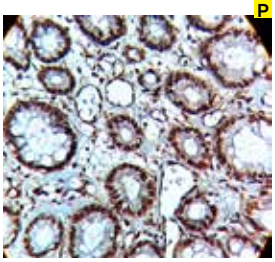
Liver carcinoma tissue stained with Anti-Myeloperoxidase using DAB Chromogen

Clone:	MPO/7118
Isotype:	IgG2a, kappa
Source:	Mouse
Immunogen:	Human Myeloperoxidase
Specificity:	Myeloperoxidase
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD37-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD37-10M**
Xmatrx®	**AXD37-YCD, AXD37-50D**
NanoVip™®	**AXD37-4M**
Concentrated:	**MUD37-UC, MUD37-5UC**
Recommended Positive Control:	**FG-D37M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D37M (Xmatrx & NanoVip™)**

Myeloperoxidase (MPO) is a heme protein essential for innate immunity and is primarily located in neutrophils. It plays a critical role in pathogen defense by producing antimicrobial hypochlorous acid from hydrogen peroxide. While it is crucial for immune responses, MPO-generated reactive oxidant species, including hypochlorous acid, can also contribute to tissue damage during inflammation. Clinically, MPO serves as a valuable marker for identifying neoplastic tissues, aiding in the detection of cells associated with various carcinomas like acute myelogenous leukemia and progranulocytic leukemia.

Nucleophosmin



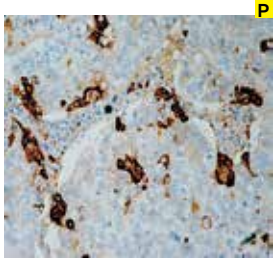
Lung adenocarcinoma tissue stained with Anti-Napsin A using DAB chromogen

Clone:	rNPM1/1901
Isotype:	IgG1, kappa
Source:	Mouse
Immunogen:	Human Nucleophosmin
Specificity:	Nucleophosmin
Localization:	Nuc & Cyt
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD46-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD46-10M**
Xmatrx®	**AXD46-YCD, AXD46-50D**
NanoVip™®	**AXD46-4M**
Concentrated:	**MUD46-UC, MUD46-5UC**
Recommended Positive Control:	**FG-D46M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D46M (Xmatrx & NanoVip™)**

Nucleophosmin (NPM1or nucleolar phosphoprotein B23 or numatrin) is a highly phosphorylated nucleolar protein involved in the assembly of ribosomal proteins into ribosome in nucleolus and maintenance of genome stability. A high level of nucleophosmin stimulates the growth of normal cells and is abundantly expressed in tumour cells than in normal resting cells. Mutations involving nucleophosmin were found in acute promyelocytic leukemia, acute myelogenous leukemia, non-Hodgkin lymphoma and myelodysplastic syndrome.

Napsin A



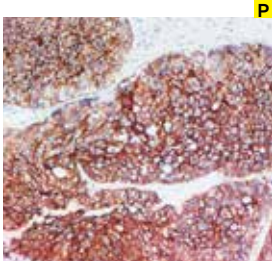
Lung adenocarcinoma tissue stained with Anti-Napsin A using DAB chromogen

Clone:	IP64
Isotype:	IgG2a
Source:	Mouse
Immunogen:	Napsin
Specificity:	Napsin A
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM701-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM701-10M**
Xmatrx®	**AX701-YCD, AX701-50D**
NanoVip™®	**AX701-4M**
Concentrated:	**MU701-UC, MU701-5UC**
Recommended Positive Control:	**FG-701M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-701M (Xmatrx & NanoVip™)**

Napsin A has specific function in normal alveolar epithelium and is proposed to play a role in the protelytic processing of surfactant precursors. Napsin A is reported to be predominantly expressed in lamellar bodies of type II pneumocutes, secondary lysosymes of alveolar macrophages, respiratory epithelium of terminal and respiratory bronchioles, plasma cells within a subset of lymphocytes in normal lung, as well as in epithellial cells of renal tubiles in normal kidney and is weakly expressed in normal spleen.

N-cadherin



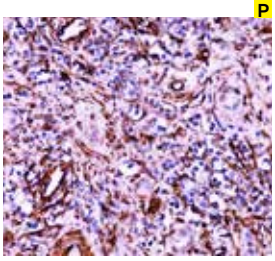
Renal cell carcinoma tissue stained with Anti-N-cadherin using DAB Chromogen

Clone:	5D5
Isotype:	IgG1
Source:	Mouse
Immunogen:	Recombinant fragment human CDH2 expressed in E.coli
Specificity:	N-cadherin
Localization:	Cell membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM928-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM928-10M**
Xmatrx®	**AX928-YCD, AX928-50D**
NanoVip™®	**AX928-4M**
Concentrated:	**MU928-UC, MU928-5UC**
Recommended Positive Control:	**FG-928M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-928M (Xmatrx & NanoVip™)**

N-cadherin is a 140 kDa protein belonging to a family of transmembrane molecules that mediate calcium-dependent intercellular adhesion. Cadherins are involved in controlling morphogenetic movements during development and regulate cell surface adhesion through homotypic adhesion with the same cadherin species. N-cadherin's function is dependent on its association with the actin-cytoskeleton and is mediated through interactions between the C-terminal region of N-cadherin and the cytoplasmic catenin proteins. The stability of this association is regulated by phosphorylation and dephosphorylation of beta-catenin.

NESTIN



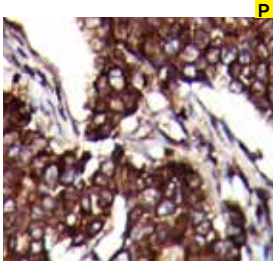
Kidney tissue stained with Anti-NESTIN using DAB Chromogen

Clone:	NES/2911
Isotype:	IgG
Source:	Mouse
Immunogen:	Human NESTIN
Specificity:	NESTIN
Localization:	Cyt & Mem
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA84-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA84-10M**
Xmatrx®	**AXA84-YCD, AXA84-50D**
NanoVip™®	**AXA84-4M**
Concentrated:	**MUA84-UC, MUA84-5UC**
Recommended Positive Control:	**FG-A84M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A84M (Xmatrx & NanoVip™)**

It is required for brain and eye development. It also promotes the disassembly of phosphorylated vimentin intermediate filaments(IF) during mitosis and may play a role in the trafficking and distribution of IF proteins and other cellular factors to daughter cells during progenitor cell division. Nestin is required for survival, renewal and mitogen-stimulated proliferation of neural progenitor cells. Nestin is a marker for neuroepithelial stem cells, glioma cells and tumor endothelial cells during rapid growth. Nestin is also expressed by dermatomal cells and by myoblasts during the earliest stages of myogenesis.

Neu



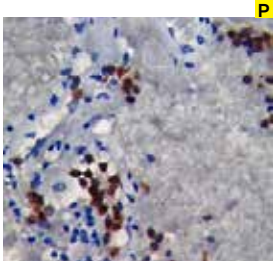
Breast Carcinoma tissue stained with Neu using DAB Chromogen

Clone:	0.N.211
Isotype:	IgG1, Kappa
Source:	Mouse
Immunogen:	Human Neu
Specificity:	Neu
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB52-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB52-10M**
Xmatrx®	**AXB52-YCD, AXB52-50D**
NanoVip™®	**AXB52-4M**
Concentrated:	**MUB52-UC, MUB52-5UC**
Recommended Positive Control:	**FG-B52M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B52M (Xmatrx & NanoVip™)**

The NEU protein is member of the human epidermal growth factor receptor (EGFR) family. Members of this family include EGFR (HER1), Neu (ErbB-2, HER2), ErbB-3 (HER3), and ErbB-4 (HER4), which form either homodimers or heterodimers upon ligand binding. NEU protein is a trans-membrane receptor tyrosine kinase that is frequently over expressed in a number of carcinomas. ErbB2 hetero or homo-dimerizes with ErbB1, 3, and 4, and can activate different pathways including the PI3K, PLC?, and MAPK pathways, depending on the ErbB receptor involved. Overexpression of the HER2/Neu protein is seen in various carcinomas such as ductal breast carcinoma, pulmonary and gastric adenocarcinomas and may play a role in the development and metastasis of gliomas, ovarian, breast, lung, and gastric carcinoma

NeuN



Brain tissue stained with Anti-NeuN using DAB Chromogen

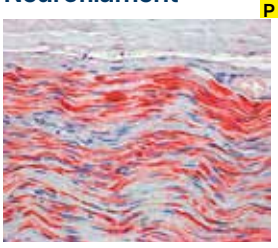
Clone:	NeuN/7071R
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human NeuN
Specificity:	NeuN
Localization:	Nuc & Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ANC08-5M**
Ready-to-Use (Automated):	
***i*6000™**	**ANC08-10M**
Xmatrx®	**AYC08-YCD, AYC08-50D**
NanoVip™®	**AYC08-4M**
Concentrated:	**NUC08-UC, NUC08-5UC**
Recommended Positive Control:	**FG-C08N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C08N (Xmatrx & NanoVip™)**

Neuronal Nuclei, also known as NeuN, Fox-3, RBFOX3, is a 350 amino acid neuron-specific protein present in most neuronal cells of CNS and PNS. It is involved in the regulation of mRNA splicing and plays a role in regulating neural cell differentiation and nervous system development. NeuN is expressed in brain, including in cerebral cortex, hippocampus, thalamus, caudate/putamen, cerebellum, as well as in the spinal cord although, some neurons fail to be recognized by NeuN at all ages such as INL retinal cells, Purkinje cells, Cajal-Retzius cells, sympathetic ganglion cells and inferior olivary and dentate nucleus neurons. Dysfunctional NeuN has been associated with various neurological disorders such as neurodevelopmental delay, autism spectrum disorder, Benign rolandic epilepsy (BRE), and cognitive impairments.

Neurofilament

P



Nerve tissue stained with Anti-Neurofilament using AEC chromogen

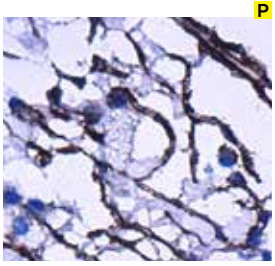
Clone:	NE-14
Isotype:	IgG1
Source:	Mouse
Immunogen:	Neurofilament purified from human brain
Specificity:	Neurofilaments
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM073-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM073-10M**
Xmatrx®	**AX073-YCD, AX073-50D**
NanoVip™®	**AX073-4M**
Concentrated:	**MU073-UC, MU073-5UC**
Recommended Positive Control:	**FG-073M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-073M (Xmatrx & NanoVip™)**

Neurofilaments (10 nm diameter) and microtubules (25 nm diameter) comprise the main structural elements of neuronal axons, dendrites, and perikerya. Neurofilaments are composed of three major polypeptides referred to as the neurofilament triplet with approximate molecular weights of 200 kD, 160 kD and 68 kD. This antibody can be used for positive identification of neurons in the central and peripheral nervous systems. In general, co-expression of keratin and neurofilament should be interpreted as indicating neuroendocrine differentiation of a given tissue or neoplasm. The antibody stains Neurofilament in sections of brain and other tissues.

NGF-Receptor

P



Astrocytoma tissue stained with Anti-NGF-Receptor using DAB Chromogen

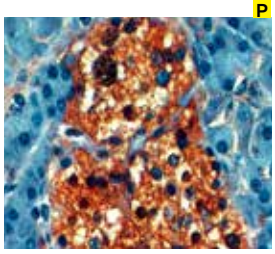
Clone:	NGFR5+NTR/912
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human NGF-Receptor
Specificity:	NGF-Receptor
Localization:	Mem/Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB85-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB85-10M**
Xmatrx®	**AXB85-YCD, AXB85-50D**
NanoVip™®	**AXB85-4M**
Concentrated:	**MUB85-UC, MUB85-5UC**
Recommended Positive Control:	**FG-B85M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B85M (Xmatrx & NanoVip™)**

NGFR (Nerve Growth Factor Receptor), also termed p75 or CD271, is the low-affinity NGFR (LNGFR) which binds NGF and other neutrophils, including BDNF, NT3 and NT4/5 with similar low-affinity. It is expressed in neuronal cells in various tissues and tumors with neuronal origin. Recent studies suggested that NGFR is also expressed in melanocytes, myoepithelial cells, basal-like cells, perivascular cells and lymphoid dendritic cells. NGFR is expressed not only in sympathetic and sensory neurons, but also in various neural crest cells or tumor derivatives such as melanocytes, Melanomas, Neurobastomas, Pheochromocytomas, Neurofibromas and neurotizednevi(Type C Melanocytes).

Neuron Specific Enolase (NSE)

P



Pancreatic islets tissue stained with Anti-NSE using DAB chromogen

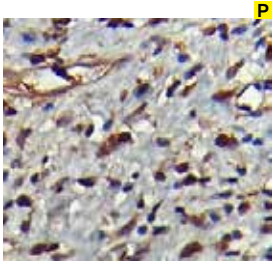
Clone:	MIG-N3
Isotype:	IgG1 Kappa
Source:	Mouse
Immunogen:	Purified human gamma enolase
Specificity:	Neuron specific enolase (NSE)
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM055-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM055-10M**
Xmatrx®	**AX055-YCD, AX055-50D**
NanoVip™®	**AX055-4M**
Concentrated:	**MU055-UC, MU055-5UC**
Recommended Positive Control:	**FG-055M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-055M (Xmatrx & NanoVip™)**

NSE is a gene which encodes for a protein found in matured neurons and is used in panels along with chromogranin, synaptophysin and neurofilament. Elevated NSE concentrations are observed in patients with neuroblastoma, pancreatic islet cell carcinoma, medullary thyroid carcinoma, pheochromocytoma, and other neuroendocrine tumors as well as certain benign conditions. NSE is specific for such proteins, and aids in detection of neural and neuroendocrine lineage.

NKX2.2

P



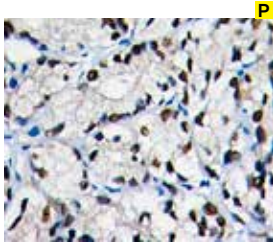
Prostate carcinoma tissue stained with Anti-NKX2.2 using DAB Chromogen

Clone:	D-4
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Human NKX2.2
Specificity:	NKX2.2
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC23-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC23-10M**
Xmatrx®	**AXC23-YCD, AXC23-50D**
NanoVip™®	**AXC23-4M**
Concentrated:	**MUC23-UC, MUC23-5UC**
Recommended Positive Control:	**FG-C23M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C23M (Xmatrx & NanoVip™)**

NKX2.2 is a member of NKX family of transcription factors. It is a homeodomain-containing transcription factor which is necessary for neuroendocrine differentiation in the central nervous system and pancreas. It is also involved with neuronal developing, patterning, and fate specification of neurons and oligodendrocytes. NKX2.2 expression has been found in the developing forebrain, spinal cord, Ewing's sarcoma and neuroendocrine tumors of the gut. NKX2.2 antibody is considered as a sensitive panel marker for distinguishing Ewing's sarcoma from other round blue cell tumors.

NKX3.1



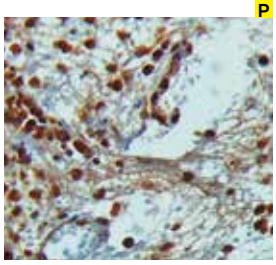
Carcinoma tissue stained with Anti-NKX3.1 using DAB chromogen

Clone:	NKX3.1/2576
Isotype:	IgG2c, kappa
Source:	Mouse
Immunogen:	Recombinant fragment (around aa 92-224) of human NKX3.1 protein (exact sequence is proprietary)
Specificity:	NKX3.1
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA55-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA55-10M**
Xmatrx®	**AXA55-YCD, AXA55-50D**
NanoVip™®	**AXA55-4M**
Concentrated:	**MUA55-UC, MUA55-5UC**
Recommended Positive Control:	**FG-A55M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A55M (Xmatrx & NanoVip™)**

The NKX3.1 gene is located on chromosome 8p21.2, whose expression is predominantly localized to prostate epithelium. The NKX3.1 protein acts as a nuclear transcription factor that has a critical function in prostate development and tumor suppression, and is a negative regulator of epithelial cell growth in prostate tissue. Apart from prostate epithelium, NKX3.1 is found in testis, ureter, and pulmonary bronchial mucous glands. NKX3.1 is a highly sensitive and specific marker for prostate adenocarcinoma in line with other prostate markers like Prostate Specific Antigen (PSA) and Prostein (p501S).

NKx3.2



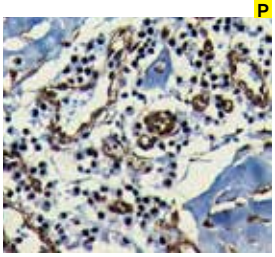
Prostate carcinoma tissue stained with Anti-NKX3.1 using DAB Chromogen

Clone:	H-4
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human NKx3.2
Specificity:	NKX3.2
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB92-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB92-10M**
Xmatrx®	**AXB92-YCD, AXB92-50D**
NanoVip™®	**AXB92-4M**
Concentrated:	**MUB92-UC, MUB92-5UC**
Recommended Positive Control:	**FG-B92M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B92M (Xmatrx & NanoVip™)**

NKX3.2 (NK3 homeobox 2) is also known as Bapx1 (bagpipe homeobox homolog 1) human gene because of its similarity to bagpipe (bap)in Drosophila. It is a homeodomain containing transcription factor. Nkx3.2 plays a role in the development of the axial and limb skeleton and as a Transcriptional repressor that acts as a negative regulator in chondrocyte maturation. Nkx3.2 has an important role in distal stomach development which is required for proper antralpyloric morphogenesis and development of antral-type epithelium

Nucleophosmin



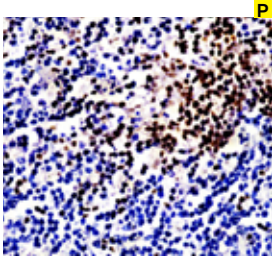
Skin tissue stained with Anti-Nucleophosmin using DAB Chromogen

Clone:	NPM1/3286
Isotype:	IgG1, kappa
Source:	Mouse
Immunogen:	Human Nucleophosmin
Specificity:	Nucleophosmin
Localization:	Nuc & Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA47-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA47-10M**
Xmatrx®	**AXA47-YCD, AXA47-50D**
NanoVip™®	**AXA47-4M**
Concentrated:	**MUA47-UC, MUA47-5UC**
Recommended Positive Control:	**FG-A47M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A47M (Xmatrx & NanoVip™)**

Nucleophosmin, also known as nucleolar phosphoprotein B23 or numatrin, is a protein that in humans is encoded by the NPM1 gene. Nucleophosmin is a nucleolar phosphoprotein more abundant in tumor cells than in normal resting cells. An increase in nucleophosmin protein level accompanies stimulation of the growth of normal cells, e.g., mitogen activation of B lymphocytes. This protein is concentrated in the granular region of the nucleolus, where ribosome assembly occurs is likely involved in the assembly of ribosomal proteinsinto ribosomes.

NUT1



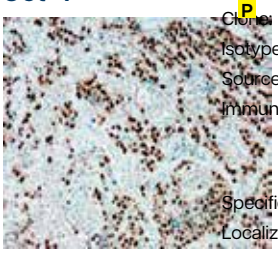
Colon tissue stained with Anti-NUT1 using DAB chromogen

Clone:	SNUPN/7363R
Isotype:	IgG, kappa
Source:	Rabbit
Immunogen:	Human NUT1
Specificity:	NUT1
Localization:	Nucleus
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AND27-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AND27-10M**
Xmatrx®	**AYD27-YCD, AYD27-50D**
NanoVip™®	**AYD27-4M**
Concentrated:	**NUD27-UC, NUD27-5UC**
Recommended Positive Control:	**FG-D27N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D27N (Xmatrx & NanoVip™)**

NUT (Nuclear protein in Testis) is a nuclear unstructured protein encoded by the NUTM1 (NUT Midline Carcinoma Family Member 1) gene on chromosome 15. It plays a role in the regulation of proliferation and shuttles between the nucleus and cytoplasm. In most of NUT midline carcinomas (NMC), there is a chromosomal translocation between NUT and BRD4/ BRD3 resulting in BRD4-NUT or BRD3-NUT fusions which contribute to carcinogenesis by blocking epithelial cell differentiation. NUT carcinomas can be carcinomas, sarcomas, lymphomas, and other types of tumors, and are primarily reported in kidney, bladder, lung, breast, and metastasis to lymph nodes

Oct-4



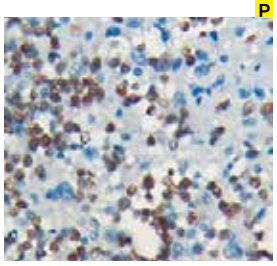
Testis stained with anti-Oct-4 using DAB chromogen

Clone:	EP143
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues of human Oct-4 protein
Specificity:	Oct-4
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVIP:	HX046-08XN

Ready-to-Use (Manual):	**AN724-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN724-10M**
Xmatrx®	**AY724-YCD, AY724-50D**
NanoVip™®	**AY724-4M**
Concentrated:	**NU724-UC, NU724-5UC**
Recommended Positive Control:	**FG-724N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-724N (Xmatrx & NanoVip™)**

Oct-4 transcription factor is initially active as a maternal factor in the oocyte but remains active in embryos throughout the preimplantation period. Oct-4 expression is associated with an undifferentiated phenotype and tumors. Oct-4 is a sensitive and specific marker for germ cell tumors. It is consistently detected in carcinoma in situ/gonadoblastoma, seminomas, germinoma, dysgerminoma, and embryonal carcinoma but not in the differentiated components of nonseminomas, i.e., teratomas, yolk sac tumors, and choriocarcinomas.

OLIG2



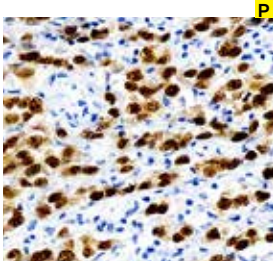
Brain tissue stained with Anti-OLIG2 using DAB Chromogen

Clone:	OLIG2/7074R
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human OLIG2
Specificity:	OLIG2
Localization:	Nuc & Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ANC12-5M**
Ready-to-Use (Automated):	
***i*6000™**	**ANC12-10M**
Xmatrx®	**AYC12-YCD, AYC12-50D**
NanoVip™®	**AYC12-4M**
Concentrated:	**NUC12-UC, NUC12-5UC**
Recommended Positive Control:	**FG-C12N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C12N (Xmatrx & NanoVip™)**

Olig2 (Oligodendrocyte lineage transcription factor 2) is a basic helix loop helix (bHLH) transcription factor belonging to group A of the OLIG family. Olig2 has a crucial role during development in specifying the final location of motor neurons and Oligodendrocyte in the spinal cord, along with the development within the hindbrain of somatic motor neurons. It is strongly expressed in Oligodendrocytes and in developing astrocytes. Olig2 is a potential diagnostic marker for oligodendrogliomas and can be used in a panel for astrocytomas.

OCT-3/4



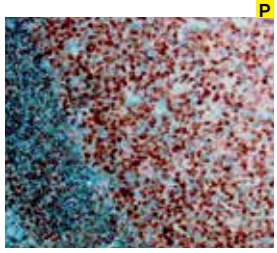
Adrenal Gland tissue stained with Anti-OCT-3/4 using DAB Chromogen

Clone:	C-10
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Human OCT-3/4
Specificity:	OCT-3/4
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB84-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB84-10M**
Xmatrx®	**AXB84-YCD, AXB84-50D**
NanoVip™®	**AXB84-4M**
Concentrated:	**MUB84-UC, MUB84-5UC**
Recommended Positive Control:	**FG-B84M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B84M (Xmatrx & NanoVip™)**

Oct-3/4 (octamer-binding transcription factor-3 & 4), a member of POU transcription factors, was identified as a DNA-binding protein that activates gene transcription via a cis-element containing an octamer motif. It is expressed in early embryonic cells and germ cells and is central to the gene regulatory network responsible for self-renewal, pluripotency, and lineage commitment in embryonic stem cells and induced pluripotent stem cells. Oct3/4 is not expressed in adult tissues. It is the most widely recognized marker of totipotent embryonic stem cells. OCT3/4antibody is a useful aid for classification of specific subtypes of germ cell tumors including seminoma, embryonal carcinoma and intratubular germ cell neoplasia of unclassified type (IGCNU).

Oct-2



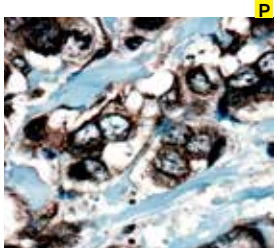
Tonsil tissue stained with Anti-OCT-2 using DAB chromogen

Clone:	EP115
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues of human Oct-2protein
Specificity:	Human Oct-2
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN830-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN830-10M**
Xmatrx®	**AY830-YCD, AY830-50D**
NanoVip™®	**AY830-4M**
Concentrated:	**NU830-UC, NU830-5UC**
Recommended Positive Control:	**FG-830N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-830N (Xmatrx & NanoVip™)**

Octamer transcription factor-2 (OCT-2) possesses a leucine zipper domain and belongs to the POU family of transcription factors. It specifically binds to the octamer motif (5- ATTTCAT-3), activates immunoglobulin gene expression and regulates transcription in a number of tissues. OCT-2 is important for the expression of B cell specific genes, such as CD20 and CRISP-3. OCT-2 is expressed in mature B cells, predominantly germinal center B cells. Low expression of OCT-2 has been found in immature B cells, T cells and myelomonocytic cells. OCT-2 reactivity in epithelial cells and neuronal cells has also been reported.

p120



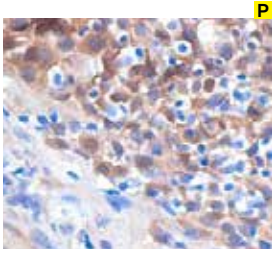
Breast carcinoma tissue stained with Anti-p120 using DAB chromogen

Clone:	SP63
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide from the C-terminus of human p120
Specificity:	Human p120
Localization:	Membrane and cytoplasm
Pre-treatment:	EZ-AR1
Manual/i6000:	HK521-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AN760-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN760-10M**
Xmatrx®	**AY760-YCD, AY760-50D**
NanoVip™®	**AY760-4M**
Concentrated:	**NU760-UC, NU760-5UC**
Recommended Positive Control:	**FG-760N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-760N (Xmatrx & NanoVip™)**

Delta 1 Catenin (p120) is an efficient tyrosine kinase substrate implicated both in cell transformation by SRC and in ligand-induced receptor signaling through the EGF, PDGF, CSF-1 and ERBB2 receptors. The association of catenins to cadherins produces a complex which is linked to the actin filament network, and which seems to be of primary importance for cadherins cell-adhesion properties. Cytoplasmic accumulation of p120 Catenin has been observed in lung carcinoma, pancreatic carcinoma, and gastric carcinoma and colon carcinomas and is associated with poor progress in colon carcinoma patients.

p16



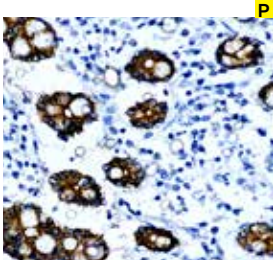
Cervical tumor tissue stained with p16 IHC on using DAB Chromogen

Clone:	IHC116
Isotype:	IgG1
Source:	Mouse
Immunogen:	Purified human recombinant full length p16 protein.
Specificity:	p16
Localization:	Cytoplasm/Nucleus
Pre-treatment:	EZ-AR1 Elegance
Manual/i6000:	HK546-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AMA08-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA08-10M**
Xmatrx®	**AXA08-YCD, AXA08-50D**
NanoVip™®	**AXA08-4M**
Concentrated:	**MUA08-UC, MUA08-5UC**
Recommended Positive Control:	**FG-A08M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A08M (Xmatrx & NanoVip™)**

p16, also known as cyclin-dependent kinase inhibitor 2A, CDKN2A or multiple tumor suppressor 1, plays an essential role in controlling the cell cycle. It functions by inhibiting the cyclin dependent kinase that phosphorylates another tumor suppressor protein called retinoblastoma protein which regulates the cell cycle. p16 has the potential to be a powerful tool in diagnosing and prognosing many gynecologic carcinomas. In some human papilloma virus (HPV) infections, the phosphorylated retinoblastoma protein is inactivated which in turn leads to the over expression of p16. This makes p16 a useful marker in evaluating HPV-associated squamous and glandular neoplasia of the lower gynecologic tract.

p120/Catenin



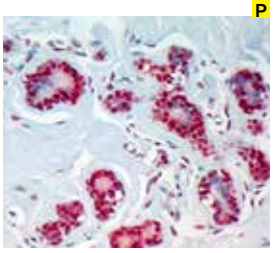
Colon tissue with Anti-p120/ Catenin using DAB Chromogen

Clone:	CTNND1/4383R
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human p120/Catenin
Specificity:	p120/Catenin
Localization:	Mem/Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ANB87-5M**
Ready-to-Use (Automated):	
***i*6000™**	**ANB87-10M**
Xmatrx®	**AYB87-YCD, AYB87-50D**
NanoVip™®	**AYB87-4M**
Concentrated:	**NUB87-UC, NUB87-5UC**
Recommended Positive Control:	**FG-B87N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B87N (Xmatrx & NanoVip™)**

p120 / Catenin, delta-1 is a proliferation-associated nuclear protein involved both in cell transformation by SRC and in ligand-induced receptor signaling through the EGF, PDGF, CSF-1 and ERBB2 receptors. p120 expression is found in most human malignant tumors, but not in resting normal cells. P120 catenin is used for categorizing ductal vs. lobular neoplasia in the breast and further clarifies the separation of low-grade ductal carcinoma in situ from lobular neoplasia.

p27 (Kip1)



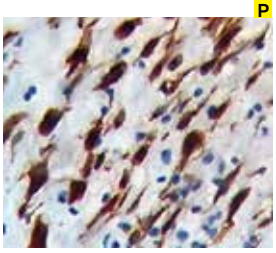
Breast tissue stained with Anti-p27/ Kip1 using AEC chromogen

Clone:	DCS72
Isotype:	IgG1
Source:	Mouse
Immunogen:	Recombinant rodent p27/ Kip1 antigen
Specificity:	p27 Kip1 antigen
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM396-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM396-10M**
Xmatrx®	**AX396-YCD, AX396-50D**
NanoVip™®	**AX396-4M**
Concentrated:	**MU396-UC, MU396-5UC**
Recommended Positive Control:	**FG-396M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-396M (Xmatrx & NanoVip™)**

The p27 Kip1 protein, also known as cyclin-dependent kinase inhibitor 1b (CDKN1B) or Kip1, is a putative tumor suppressor gene, regulator of drug resistance in solid tumors, and promoter of apoptosis. It acts as a safeguard against inflammatory injury and it has a role in cell differentiation. The p27 Kip1 protein is expressed in all normal tissues. The level of its expression has been observed to decrease during tumor development and progression in many tumors, including oral squamous cell carcinoma and in thyroid, colon, breast, prostate, and superficial bladder carcinomas. Overexpression of p27 Kip1 has been observed in a subset of aggressive B cell lymphomas.

P16



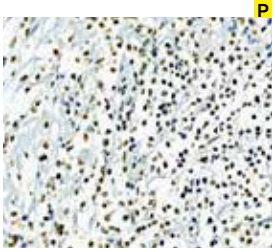
Squamous carcinoma of cervix tissue stained with Anti-p16 using DAB chromogen

Clone:	JC8
Isotype:	IgG2a
Source:	Mouse
Immunogen:	Human P16
Specificity:	P16
Localization:	Nuc/Cyto
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC71-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC71-10M**
Xmatrx®	**AXC71-YCD, AXC71-50D**
NanoVip™®	**AXC71-4M**
Concentrated:	**MUC71-UC, MUC71-5UC**
Recommended Positive Control:	**FG-C71M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C71M (Xmatrx & NanoVip™)**

p16 INK4A, also designated as CDKN2A or p16, is an important cell cycle regulator and acts as a tumor suppressor that inhibits the catalytic activity of the Cdk4/cyclin D complex. P16 binds to CDK4 and inhibiting its kinase ability, so that it cannot phosphorylate the retinoblastoma tumor suppressor (RB). Mutations in the gene leads to inactivation of p16 protein which has been associated with an increased risk of carcinoma and are often observed in primary tumors and in carcinoma cell lines.

p40



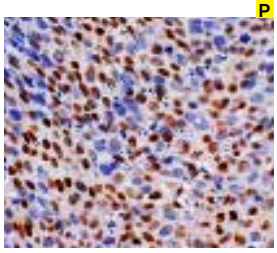
Prostate tissue stained with Anti-p40 using DAB chromogen

Clone:	TP40/3980R
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide from the N-terminal of human p40 protein
Specificity:	p40
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ANA43-5M**
Ready-to-Use (Automated):	
***i*6000™**	**ANA43-10M**
Xmatrx®	**AYA43-YCD, AYA43-50D**
NanoVip™®	**AYA43-4M**
Concentrated:	**NUA43-UC, NUA43-5UC**
Recommended Positive Control:	**FG-A43N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A43N (Xmatrx & NanoVip™)**

TAp63 and delta-Np63 are the two major isoforms of p63 and these isoforms differ from each other in the structure of the N-terminal domains. Delta-Np63 isoform that is identified by anti-p40 antibody contains an alternative transcriptionally-inactive delta-N domain. BioGenex TP40/3980R (p40) clone is specific for delta-Np63 but not TAp63. p40 reacts with the vast majority of cases of squamous cell carcinomas of various origins, but not with adenocarcinomas.

p21/WAF1



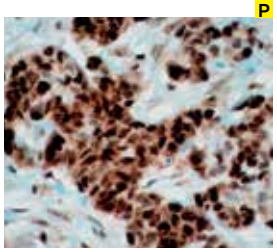
Cervical Carcinoma tissue stained with Anti-p21/Waf1 using DAB chromogen

Clone:	ClP1/4377R
Isotype:	IgG
Source:	Rabbit
Immunogen:	Recombinant full length human CDKN1A protein
Specificity:	p21/WAF1
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ANA13-5M**
Ready-to-Use (Automated):	
***i*6000™**	**ANA13-10M**
Xmatrx®	**AYA13-YCD, AYA13-50D**
NanoVip™®	**AYA13-4M**
Concentrated:	**NUA13-UC, NUA13-5UC**
Recommended Positive Control:	**FG-A13N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A13N (Xmatrx & NanoVip™)**

The p21/WAF1 protein is a p53 regulated gene product has been shown to mediate cell cycle arrest. The growth arrest is due to several properties of this protein, namely cyclin dependent kinase inhibition, and maintenance of cell cycle arrest at G2 by blocking the interaction of Cdc25C with PCNA and inhibition of stress activated protein kinases. In breast carcinoma the p21/WAF1 expression is in general seen to be negative.

p27/Kip1



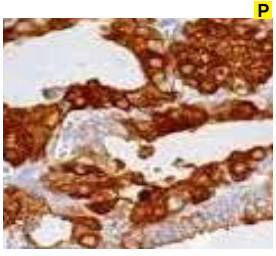
Breast carcinoma tissue stained with Anti-p27/Kip1 using DAB chromogen

Clone:	EP104
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues in the C-terminus of of human p27/Kip1 protein
Specificity:	Human p27/Kip1
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN817-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN817-10M**
Xmatrx®	**AY817-YCD, AY817-50D**
NanoVip™®	**AY817-4M**
Concentrated:	**NU817-UC, NU817-5UC**
Recommended Positive Control:	**FG-817N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-817N (Xmatrx & NanoVip™)**

p27/Kip1 is a cyclin kinase inhibitor involved in G1 arrest. p27/Kip1 binds to and inhibits cyclinE-Cdk2 complex, cyclinA-CDK2 and cyclinD1-CDK4 (1). p27/Kip1 is regulated by phosphorylation on serine 10 (s10) and threonine 187 (T187). Phosphorylation by CDK2 on T187 results in ubiquitination and degradation of p27/Kip1, while phosphorylation by hKIS on S10 signals nuclear export to the cytoplasm. The expression level of p27/Kip1 is high in normal cells. Downregulation of p27/Kip1 is found in many types of carcinomas, and decreased expression of p27/Kip1 appears to be a poor prognostic factor in several tumor models, including carcinomas of the lung, breast, colorectal, and prostate.

PRPS1/2/3



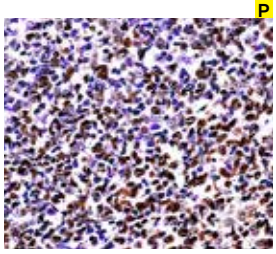
Pancreatic Adenocarcinoma tissue stained with Anti-C-myc using DAB chromogen

Clone:	A-11
Isotype:	IgG, kappa
Source:	Mouse
Immunogen:	Human PRPS1/2/3
Specificity:	PRPS1/2/3
Localization:	Cyt & Nuc
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD63-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD63-10M**
Xmatrx®	**AXD63-YCD, AXD63-50D**
NanoVip™®	**AXD63-4M**
Concentrated:	**MUD63-UC, MUD63-5UC**
Recommended Positive Control:	**FG-D63M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D63M (Xmatrx & NanoVip™)**

PRPS (phosphoribosyl pyrophosphate synthetase) plays a vital role in catalyzing the phosphoribosylation of ribose 5-phosphate, crucial for purine, pyrimidine, and pyridine biosynthesis in both de novo and salvage pathways. While PRPS1 and PRPS2 are widely expressed, PRPS3 is specific to the testis. Mutations in PRPS1 can lead to PRPS superactivity, characterized by gout and excessive production of purine nucleotides, uric acid, and PRPP. Additionally, PRPS1 mutations may result in reduced activity, contributing to conditions like ARTS syndrome or CMTX5 (Charcot-Marie-Tooth disease X-linked recessive type 5).

PARP-1



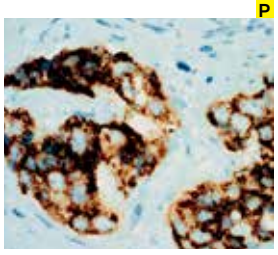
Tonsil tissue stained with Anti-TMPRSS2 using DAB chromogen

Clone:	B-10
Isotype:	IgG1, kappa
Source:	Mouse
Immunogen:	Human PARP-1
Specificity:	PARP-1
Localization:	Nuc & Cyt
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD13-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD13-10M**
Xmatrx®	**AXD13-YCD, AXD13-50D**
NanoVip™®	**AXD13-4M**
Concentrated:	**MUD13-UC, MUD13-5UC**
Recommended Positive Control:	**FG-D13M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D13M (Xmatrx & NanoVip™)**

Poly ADP-Ribose Polymerase 1 (PARP-1), a 116 kDa nuclear DNA-binding zinc finger enzyme that influences DNA repair in response to environmental stress. It catalyses the transfer of ADP-ribose units from NAD (+) to a number of nuclear acceptor molecules including chromatin. Caspases mediates proteolysis of PARP1 into 24-kDa NH2-terminal peptide and 85 to 89-kDa COOH-terminal fragment that traverses into the cytoplasm. The appearance of PARP fragments facilitates cellular disassembly and serves as an early marker of programmed cell death (apoptosis).

P504S (AMACR)



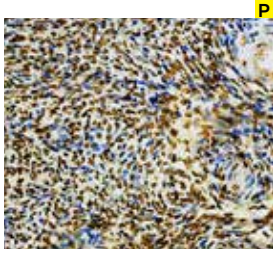
Prostate carcinoma tissue stained with Anti-P504S antibody using DAB chromogen

Clone:	13H4
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human AMACR polypeptide
Specificity:	P504S
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN449-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AN449-10ME**
Xmatrx®	**AN449-YCDE, AN449-50DE**
NanoVip™®	**AN449-4ME**
Concentrated:	**NU449-UCE, NU449-5UCE**
Recommended Positive Control:	**FG-449NE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-449NE (Xmatrx & NanoVip™)**

P504S is a gene that encodes a protein Alpha-Methylacyl-CoA Racemase that is involved in the metabolism of branched-chain fatty acid and bile acid intermediates. P504S antibody stains human Alpha Methylacyl CoA Racemase in the cytoplasm of target prostatic cells.

PAX3



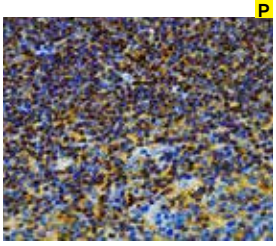
Ovary tissue stained with Anti-PAX3 using DAB Chromogen

Clone:	PAX3/4700
Isotype:	IgG2a, kappa
Source:	Mouse
Immunogen:	Human PAX3
Specificity:	PARP-1
Localization:	Nuclear
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD28-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD28-10M**
Xmatrx®	**AXD28-YCD, AXD28-50D**
NanoVip™®	**AXD28-4M**
Concentrated:	**MUD28-UC, MUD28-5UC**
Recommended Positive Control:	**FG-D28M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D28M (Xmatrx & NanoVip™)**

PAX3 (Paired Box 3) is a DNA-binding protein consisting of an amino-terminal “paired” box domain and a paired-type homeodomain. It belongs to paired box (PAX) family of transcription factors and plays a critical role during fetal development. PAX3 is involved in development of peripheral nervous system, melanocytes, some vascular smooth muscle and are responsible for embryonic patterning and organogenesis. Mutations in PAX3 gene are associated with Waardenburg syndrome II (WSII), WSI/WSIII, alveolar rhabdomyosarcoma and craniofacial-deafness-hand syndrome

PIT-1



Thyroid tissue stained with Anti-PIT-1 using DAB chromogen

Clone:	PIT1/7262
Isotype:	IgG2b, kappa
Source:	Mouse
Immunogen:	Human PIT-1
Specificity:	PIT-1
Localization:	Nuclear
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD10-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD10-10M**
Xmatrx®	**AXD10-YCD, AXD10-50D**
NanoVip™®	**AXD10-4M**
Concentrated:	**MUD10-UC, MUD10-5UC**
Recommended Positive Control:	**FG-D10M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D10M (Xmatrx & NanoVip™)**

PIT-1 (Pituitary-specific transcription factor 1) also known as POU1F1, GHF-1 (Growth hormone factor 1), CPHD1, is a transcription factor belongs to POU homeodomain family. It is essential for the anterior pituitary gland development and hormone expression in mammals. PIT1 is also important for regulation of five distinct hormone-producing cell lineages, including somatotropes, lactotropes, thyrotropes, corticotropes, and gonadotropes. Loss of Pit-1 expression results in combined pituitary hormone deficiency (CPHD) of growth hormone, Prolactin and thyroid stimulating hormone. PIT-1 is also expressed in human breast and its upregulation leads to breast carcinoma metastasis

PMS-2

Colon carcinoma tissue stained with Anti-PMS2 using DAB Chromogen

Clone:	PMS2/8224R
Isotype:	IgG, kappa
Source:	Rabbit
Immunogen:	Human PMS2
Specificity:	PMS2
Localization:	Nuclear
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AND47-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AND47-10M**
Xmatrx®	**AYD47-YCD, AYD47-50D**
NanoVip™®	**AYD47-4M**
Concentrated:	**NUD47-UC, NUD47-5UC**
Recommended Positive Control:	**FG-D47N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D47N (Xmatrx & NanoVip™)**

PMS2 (Postmeiotic Segregation Increased 2) is one of the four major DNA mismatch repair (MMR) proteins along with MLH1, MSH2, and MSH6. It is crucial for maintaining genomic integrity by detecting and repairing errors that may occur during DNA replication. Mutations in these genes have been associated with microsatellite instability (MSI) which in turn develops Hereditary Non-Polyposis Colon Carcinoma (HNPCC) and several other carcinomas including endometrial carcinoma. Anti-PMS2 antibody is recommended to be used as a part of a panel for differentiating the gastrointestinal tract tumours, including HNPCC and associated extracolonic carcinomas

PMS-2

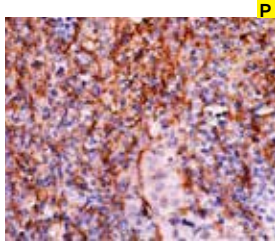
Colon Carcinoma tissue stained with Anti-PMS2 using DAB chromogen

Clone:	B-3
Isotype:	IgG1, Kappa
Source:	Mouse
Immunogen:	Human PMS2
Specificity:	PMS2
Localization:	Nuclear
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD62-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD62-10M**
Xmatrx®	**AXD62-YCD, AXD62-50D**
NanoVip™®	**AXD62-4M**
Concentrated:	**MUD62-UC, MUD62-5UC**
Recommended Positive Control:	**FG-D62M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D62M (Xmatrx & NanoVip™)**

PMS2 (Postmeiotic Segregation Increased 2) is a DNA repair protein essential for mismatch repair. It forms a heterodimer with MLH1, engaging with MSH2 bound to mismatched DNA bases. Mutations or deficiencies in the PMS2 gene are associated with microsatellite instability, contributing to conditions like hereditary nonpolyposis colorectal carcinoma and endometrial carcinoma. In diagnosing microsatellite instability (MSI), it is advisable to use a panel that comprises PMS2, MLH1, MSH2, and MSH6. Furthermore, evaluating the expression levels of the PMS2 protein can be a valuable screening tool to identify Lynch syndrome following a colorectal carcinoma diagnosis

Podoplanin



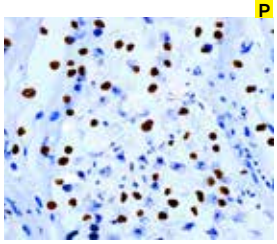
Tonsil tissue stained with Anti-Podoplanin using DAB Chromogen

Clone:	D2-40
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human Podoplanin
Specificity:	Podoplanin
Localization:	Cyt & Mem
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD43-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD43-10M**
Xmatrx®	**AXD43-YCD, AXD43-50D**
NanoVip™®	**AXD43-4M**
Concentrated:	**MUD43-UC, MUD43-5UC**
Recommended Positive Control:	**FG-D43M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D43M (Xmatrx & NanoVip™)**

Podoplanin (PDPN, T1A, gp38, Aggrus) is a 38 kDa type I single-pass transmembrane glycoprotein belonging to the type-1 family of sialomucin-like glycoproteins. It plays an important role in maintaining the unique shape of podocytes by regulating lymphatic endothelium and also involved in cell migration, metastasis formation and tumor cell invasion of tissue. Podoplanin is expressed in lymphatic epithelial cells, epithelioid mesotheliomas, seminomas, follicular DCs, thymic epithelial cells and stromal cells of peripheral lymphoid tissue. High expression of Podoplanin is observed in a number of tumor types including germ cell tumors, oral squamous cell carcinomas and colorectal carcinomas

PRAME



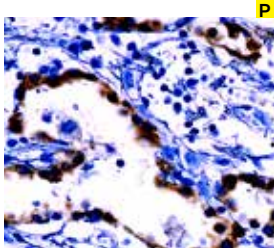
Pancreatic Adenocarcinoma tissue stained with Anti-C-myc using DAB chromogen

Clone:	PRAME/8558R
Isotype:	IgG, kappa
Source:	Rabbit
Immunogen:	Human PRAME
Specificity:	PRAME
Localization:	Nuclear
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AND41-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AND41-10M**
Xmatrx®	**AYD41-YCD, AYD41-50D**
NanoVip™®	**AYD41-4M**
Concentrated:	**NUD41-UC, NUD41-5UC**
Recommended Positive Control:	**FG-D41N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D41N (Xmatrx & NanoVip™)**

PRAME(PReferentially-expressed Antigen in MElanoma) is an autosomal carcinoma-testis antigen (CTA) gene that encodes a 509 amino acid residue protein which is associated with the outcome and risk of metastasis. It is a melanoma antigen that is preferentially expressed in tumours and is recognized by cytotoxic T lymphocytes. PRAME is expressed in melanoma cells, various non-melanocytic malignant neoplasms, including non-small cell lung carcinoma, breast carcinoma, renal cell carcinoma, ovarian carcinoma, Hodgkin's disease, leukaemia, synovial sarcoma, multiple myeloma and myxoid liposarcoma.

Progesterone Receptor



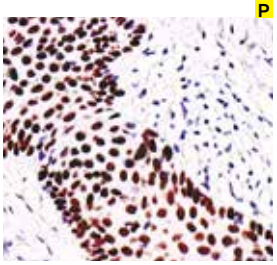
Breast Carcinoma tissue stained with Anti-Progesterone Receptor using DAB chromogen

Clone:	PGR/6854R
Isotype:	IgG, kappa
Source:	Rabbit
Immunogen:	Human Progesterone Receptor
Specificity:	Progesterone Receptor
Localization:	Nuclear
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AND06-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AND06-10M**
Xmatrx®	**AYD06-YCD, AYD06-50D**
NanoVip™®	**AYD06-4M**
Concentrated:	**NUD06-UC, NUD06-5UC**
Recommended Positive Control:	**FG-D06N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D06N (Xmatrx & NanoVip™)**

Progesterone receptor (PR) is a 946 amino acid ligand-activated transcription factor that belongs to the steroid super family of nuclear receptors. It is plays a central role in reproductive events associated with the establishment and maintenance of pregnancy. Human progesterone receptor (PR) is expressed as two forms: the full length 120 kDa protein (PR-B) and the short form 94 kDa protein (PR-A). The expression of progesterone receptor is observed in female sex steroid responsive tissues such as mammary gland, ovary and uterus but also found in other tissues such as endocrine cells of Langerhans islets.

p63



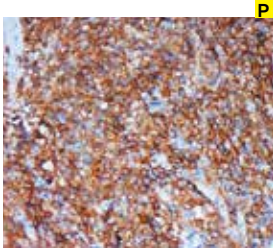
Skin Basal cell carcinoma tissue with Anti-p63 using DAB Chromogen

Clone:	TP63/1423R
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human p63
Specificity:	p63
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ANC90-5M**
Ready-to-Use (Automated):	
***i*6000™**	**ANC90-10M**
Xmatrx®	**AYC90-YCD, AYC90-50D**
NanoVip™®	**AYC90-4M**
Concentrated:	**NUC90-UC, NUC90-5UC**
Recommended Positive Control:	**FG-C90N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C90N (Xmatrx & NanoVip™)**

P63 is a nuclear protein widely expressed in basal cells in the epithelial layers of a variety of tissues, including epidermis, cervix, urothelium, breast and prostate. It has been identified as a useful panel marker for differential diagnosis of prostate and breast. P63 was also shown to be a sensitive marker for squamous cell carcinomas (SqCC).

PD-L1



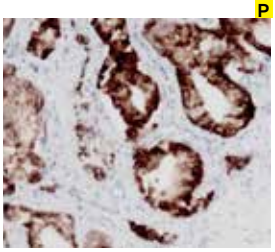
Heart tissue stained with Anti-PD-L1 using DAB chromogen

Clone:	PDL1/2746
Isotype:	IgG2b, kappa
Source:	Mouse
Immunogen:	Human PD-L1
Specificity:	PD-L1
Localization:	Mem / Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC54-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC54-10M**
Xmatrx®	**AXC54-YCD, AXC54-50D**
NanoVip™®	**AXC54-4M**
Concentrated:	**MUC54-UC, MUC54-5UC**
Recommended Positive Control:	**FG-C54M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C54M (Xmatrx & NanoVip™)**

PD-L1 (Programmed death receptor ligand 1) also designated as B7-H1 or CD274, is a B7 related protein belonging to the BTN/MOG family. It is a 40 kDa type I transmembrane protein that binds to its receptor, PD-1, found on CD4 and CD8 thymocytes, activated T and B lymphocytes and myeloid cells. As a result of this interaction, T-cell receptor (TCR)-mediated proliferation is attenuated and an active immune response is prevented. This mechanism is often co-opted by tumors and is thought to play an important role in tumor immune evasion.

P504S/AMR



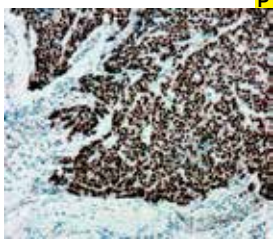
Prostate Carcinoma tissue with P504S / AMACR using DAB chromogen

Clone:	RBT-AMACR
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human P504S / AMACR
Specificity:	P504S / AMACR
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN538-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN538-10M**
Xmatrx®	**AY538-YCD, AY538-50D**
NanoVip™®	**AY538-4M**
Concentrated:	**NU538-UC, NU538-5UC**
Recommended Positive Control:	**FG-538N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-538N (Xmatrx & NanoVip™)**

P504S is a prostate carcinoma-specific gene and it encodes a protein Alpha-Methylacyl-Coenzyme A Racemase that is involved in beta-oxidation of branched-chain fatty acid and bile acid intermediates. P504S antibody binds to the human Alpha Methylacyl CoA Racemase present in the cytoplasm of target prostatic cells. Immunohistochemical Analysis showed high expression of AMACR (P504S) protein in prostatic adenocarcinoma but not in benign prostatic tissue.

p53



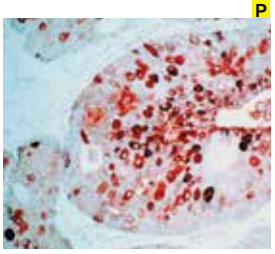
Breast carcinoma tissue stained with Anti-P53 using DAB chromogen

Clone:	EP9
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to N-terminal residues of human p53 protein
Specificity:	Human p53 protein
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN728-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN728-10M**
Xmatrx®	**AY728-YCD, AY728-50D**
NanoVip™®	**AY728-4M**
Concentrated:	**NU728-UC, NU728-5UC**
Recommended Positive Control:	**FG-728N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-728N (Xmatrx & NanoVip™)**

Tumor protein p53, a nuclear protein, plays an essential role in the regulation of cell cycles, specifically in the transition from G0 to G1. It is found in very low levels in normal cells, and it functions as a tumor suppressor within a variety of tumors by either stimulating apoptosis or growth arrest in deference to cell type and physiological factors. p53 is overexpressed in over 50% of human carcinomas. Positive staining of p53 detected by immunohistochemistry has been observed in colon carcinoma, breast carcinoma, lung carcinoma, prostate carcinoma and ovary carcinoma.

pS2 Estrogen Inducible Protein



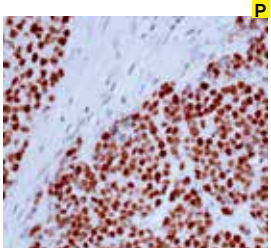
Breast carcinoma tissue stained with Anti-pS2 estrogen inducible protein using Fast Red chromogen

Clone:	PS2.1
Isotype:	IgG1
Source:	Mouse
Immunogen:	Synthetic peptide of 31 amino acid residues from the C-terminus of human pS2 protein
Specificity:	pS2 protein
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM190-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM190-10M**
Xmatrx®	**AX190-YCD, AX190-50D**
NanoVip™®	**AX190-4M**
Concentrated:	**MU190-UC, MU190-5UC**
Recommended Positive Control:	**FG-190M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-190M (Xmatrx & NanoVip™)**

This antibody specifically recognizes 6.5 kD human pS2 estrogen-regulated protein (6.5 kD). pS2 is specifically expressed and secreted by ER-mucosa cells of the normal stomach (antrum and body) of both female and male individuals. Primary breast tumors have been shown to express pS2 in ER+primary breast tumors. This antibody shows a predominantly cytoplasmic localization of pS2 protein.

p53 Protein



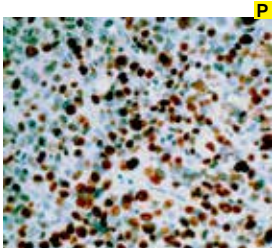
Breast carcinoma tissue stained with Anti-p53 using DAB chromogen

Clone:	BP53-12-1
Isotype:	IgG21
Source:	Mouse
Immunogen:	Recombinant human wild-type p53 protein
Specificity:	p53 protein
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM195-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM195-10M**
Xmatrx®	**AX195-YCD, AX195-50D**
NanoVip™®	**AX195-4M**
Concentrated:	**MU195-UC, MU195-5UC**
Recommended Positive Control:	**FG-195M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-195M (Xmatrx & NanoVip™)**

p53 is a tumor suppressor gene product identified in a wide variety of tumors. p53 protein is present in low concentration in normal cells, but elevated levels of mutant p53 have been found in many common carcinomas. Accumulation of mutant p53 detected by immunohistochemical staining has been reported in breast, lung, colon, stomach, bladder, and testis carcinomas, soft-tissue sarcomas, and melanomas. This antibody stains positive in nucleus of a variety of tumor cells.

p53 Protein



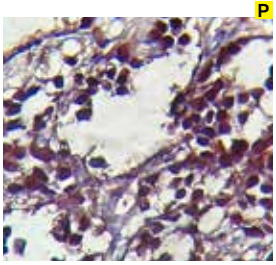
Breast carcinoma tissue stained with Anti-p53 using DAB chromogen

Clone:	DO7
Isotype:	IgG1
Source:	Mouse
Immunogen:	Recombinant wild-type p53 protein
Specificity:	p53 protein
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM239-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM239-10M**
Xmatrx®	**AX239-YCD, AX239-50D**
NanoVip™®	**AX239-4M**
Concentrated:	**MU239-UC, MU239-5UC**
Recommended Positive Control:	**FG-239M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-239M (Xmatrx & NanoVip™)**

p53 is a tumor suppressor gene product identified in a wide variety of tumors. p53 protein is present in low concentration in normal cells, but elevated levels of mutant p53 have been found in many common carcinomas. Accumulation of mutant p53 detected by immunohistochemical staining has been reported in breast, lung, colon, stomach, bladder, and testis carcinomas, soft-tissue sarcomas, and melanomas. This antibody stains positive in nucleus of a variety of tumor cells.

p57 kip2



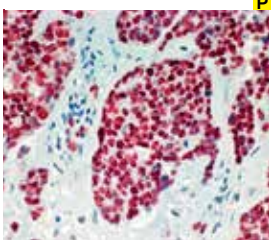
Bladder tissue with Anti-p57 kip2 using DAB Chromogen

Clone:	KP10
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Human p57 kip2
Specificity:	p57 kip2
Localization:	Nucleus
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA45-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA45-10M**
Xmatrx®	**AXA45-YCD, AXA45-50D**
NanoVip™®	**AXA45-4M**
Concentrated:	**MUA45-UC, MUA45-5UC**
Recommended Positive Control:	**FG-A45M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A45M (Xmatrx & NanoVip™)**

p57 kip2 is a protein which is cyclin-dependent kinase inhibitor (CDKI) and is paternally imprinted that is being expressed from maternal allele. P57 is an imprinted gene located at the chromosomal locus 11p15.5. The cyclin-dependent kinase inhibitor which belongs to the CIP/KIP family also includes additionally p21CIP1/WAF1 and p27KIP1. It is one of the less studied CIP/KIP member and has an important role in embryogenesis. p57 kip2 regulates the cell cycle. Few functions have been attributed to this protein also includes cytoskeleton organization.

p53 Protein



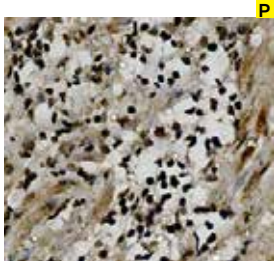
Breast carcinoma tissue stained with Anti-p53 using DAB chromogen

Clone:	1801
Isotype:	IgG1
Source:	Mouse
Immunogen:	Fusion proteins of human p53 with β-galactosidase
Specificity:	p53 protein
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM240-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM240-10M**
Xmatrx®	**AX240-YCD, AX240-50D**
NanoVip™®	**AX240-4M**
Concentrated:	**MU240-UC, MU240-5UC**
Recommended Positive Control:	**FG-240M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-240M (Xmatrx & NanoVip™)**

p53 is a tumor suppressor gene product identified in a wide variety of tumors. p53 protein is present in low concentrations in normal cells, but elevated levels of mutant p53 have been found in many common carcinomas. Accumulation of mutant p53 detected by immunohistochemical staining has been reported in breast, lung, colon, stomach, bladder, and testis carcinomas, soft-tissue sarcomas, and melanomas. This antibody stains both wild-type and mutant human p53 protein primarily in the nucleus of positive cells.

p57/Kip2



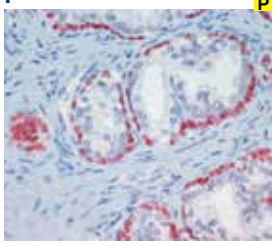
Heart tissue with Anti-p57 Kip2 using DAB Chromogen

Clone:	KP39
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Human p57/Kip2
Specificity:	p57/Kip2
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB94-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB94-10M**
Xmatrx®	**AXB94-YCD, AXB94-50D**
NanoVip™®	**AXB94-4M**
Concentrated:	**MUB94-UC, MUB94-5UC**
Recommended Positive Control:	**FG-B94M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B94M (Xmatrx & NanoVip™)**

p57 kip2 is a protein which is cyclin-dependent kinase inhibitor (CDKI) and is paternally imprinted that is being expressed from maternal allele. P57 is an imprinted gene located at the chromosomal locus 11p15.5. The cyclindependent kinase inhibitor which belongs to the CIP/KIP family also includes additionally p21CIP1/WAF1 and p27KIP1. It is one of the less studied CIP/KIP member and has an important role in embryogenesis. p57 kip2 regulates the cell cycle. Few functions have been attributed to this protein also includes cytoskeleton organization. p57 kip2 is frequently downregulated in many common human malignancies by several mechanisms showing its anti-oncogenic function.

p63



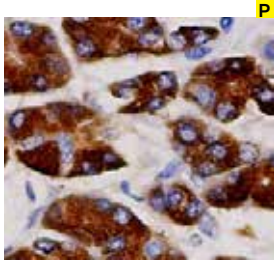
Prostate tissue stained with Anti-p63 using AEC chromogen

Clone:	4A4
Isotype:	IgG2a
Source:	Mouse
Immunogen:	Amino terminal fragment of the delta Np63 isoform
Specificity:	p63
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000™:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM418-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM418-10M**
Xmatrx®	**AX418-YCD, AX418-50D**
NanoVip™®	**AX418-4M**
Concentrated:	**MU418-UC, MU418-5UC**
Recommended Positive Control:	**FG-418M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-418M (Xmatrx & NanoVip™)**

p63 protein is critical for cell proliferation, it is member of the p53 gene family. p63 protein is expressed in proliferating cells of normal epithelium, cervix, urothelium and prostate. p63 is critical for regenerative proliferation of cells in limb, craniofacial and epidermal morphogenesis The delta Np63 isoform has a high expression in nasopharyngeal carcinomas. p63 protein is predominantly localizied in the basal layer of stratified squamous and transitional epithelia. This antibody will detect all isoforms of p63 since the epitope is within the DNA binding domain.

Pancreatic Lipase



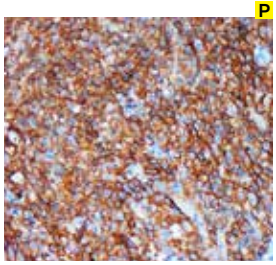
Pancreas tissue stained with Anti-Pancreatic Lipase using DAB Chromogen

Clone:	A-3
Isotype:	IgG1, kappa
Source:	Mouse
Immunogen:	Human Pancreatic Lipase
Specificity:	Pancreatic Lipase
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC64-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC64-10M**
Xmatrx®	**AXC64-YCD, AXC64-50D**
NanoVip™®	**AXC64-4M**
Concentrated:	**MUC64-UC, MUC64-5UC**
Recommended Positive Control:	**FG-C64M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C64M (Xmatrx & NanoVip™)**

Pancreatic Lipase, also designated as pancreatic triacylglycerol acyl hydrolase, PL or PTL belongs to AB hydrolase superfamily. It is a 56kDa protein secreted by pancreas which is essential for the efficient digestion of dietary fats. Pancreatic Lipase hydrolyses insoluble, emulsified triglycerides into diglycerides, monoglycerides and free fatty acids in the intestine. Exocrine pancreas failure or pancreatic insufficiency results in steatorrhoea or steatorrhea, where increased fat excretion is seen in fecal samples.

PD-L1



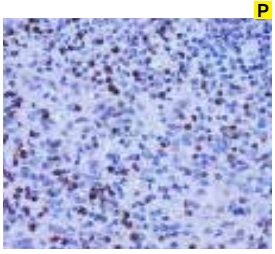
Lung tissue stained with Anti-PD-L1 using DAB Chromogen

Clone:	IHC411
Isotype:	IgG
Source:	Rabbit
Immunogen:	Full length human PD-L1
Specificity:	PD-L1
Localization:	Cell membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN921-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN921-10M**
Xmatrx®	**AY921-YCD, AY921-50D**
NanoVip™®	**AY921-4M**
Concentrated:	**NU921-UC, NU921-5UC**
Recommended Positive Control:	**FG-921N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-921N (Xmatrx & NanoVip™)**

PD-L1 (Programmed death ligand 1) or cluster of differentiation 274 (CD274) or B7 homolog 1 (B7-H1) is immunoglobulin-like type I transmembrane glycoprotein that act as a ligand for programmed death 1 (PD-1). PD-L1 expression is seen on T cells, B cells, dendritic cells, and monocytes. It is critical factor in infection and disease progression of human immunodeficiency virus, sepsis, and tuberculosis. PD-L1 upon interaction with its receptor PD-1, delivers inhibitory signals to activated B cells and T cells, and thus helps to maintain the balance between effective immunity, tolerance and immunopathology. Overexpression of PD-L1 may allow carcinoma cells to evade the actions of the host immune system.

PERFORIN-1



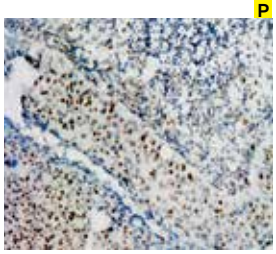
Spleen tissue stained with Anti-Perforin-1 using DAB chromogen

Clone:	PRF1/2470
Isotype:	IgG2c, Kappa
Source:	Mouse
Immunogen:	Recombinant human Perforin-1 protein fragment
Specificity:	PERFORIN-1
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA26-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA26-10M**
Xmatrx®	**AXA26-YCD, AXA26-50D**
NanoVip™®	**AXA26-4M**
Concentrated:	**MUA26-UC, MUA26-5UC**
Recommended Positive Control:	**FG-A26M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A26M (Xmatrx & NanoVip™)**

Perforin is a pore forming cytolytic protein. It is found in the granules of cytotoxic T lymphocytes (CTLs) and natural killer cells (NK cells) that drive to osmotic lysis of the target cells and subsequently empower granzymes to enter the target cells and stimulate apoptosis. The lytic membrane-inserting part of perforin is the MACPF domain. Perforin has structural and functional similarities to complement component 9 (C9). It has been evaluated that perforin act by creating holes in the plasma membrane which generate an influx of calcium and begins membrane repair mechanisms. These repair mechanisms bring perforin and granzymes into early endosomes. The expression of perforin is reportedly upregulated in activated CD8+ T-cells, natural killer cells and some CD4+ T-cells.

Papillomavirus Type 16 (HPV-16)



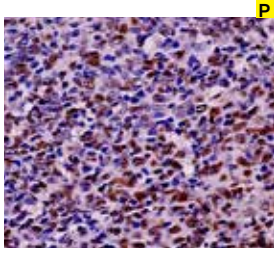
HPV infected tissue stained with Anti-HPV 16 using DAB chromogen

Clone:	Cam Vir-1
Isotype:	IgG 2a
Source:	Mouse
Immunogen:	Recombinant HPV-16 protein
Specificity:	HPV16
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM362-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AM362-10ME**
Xmatrx®	**AX362-YCDE, AX362-50DE**
NanoVip™®	**AX362-4ME**
Concentrated:	**MU362-UCE, MU362-5UCE**
Recommended Positive Control:	**FG-362ME (Manual & i6000)**
Recommended Microchamber Slide:	**FB-362ME(Xmatrx & NanoVip™)**

Infection with certain types of HPV, the so-called “oncogenic HPVs” including 16, 18, 31, 33, and 35, has been associated as a major risk factor in the subsequent development of cervical carcinoma. The high-risk HPV 16 group is almost equally associated with cervical intraepithelial neoplasia (CIN) and cervical carcinoma. HPV 6 and 11 are found mainly in benign cervical lesions while HPV 16 and 18 have been associated with premalignant and malignant cervical lesions. The presence of HPV has been reported in malignant lesions of the skin, oral cavity, tongue, and lung. This antibody Papillomarvirus type 16 in the nucleus of infected cells or tissues stained by immunohistochemical techniques.

PARP-1



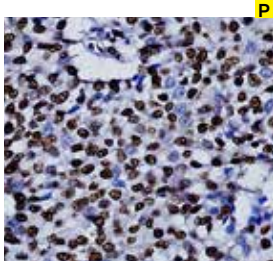
Tonsil tissue stained with Anti-PARP-1 using DAB Chromogen

Clone:	B-10
Isotype:	IgG1, kappa
Source:	Mouse
Immunogen:	Human PARP-1
Specificity:	PARP-1
Localization:	Nuc & Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD13-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD13-10M**
Xmatrx®	**AXD13-YCD, AXD13-50D**
NanoVip™®	**AXD13-4M**
Concentrated:	**MUD13-UC, MUD13-5UC**
Recommended Positive Control:	**FG-D13M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D13M (Xmatrx & NanoVip™)**

Poly ADP-Ribose Polymerase 1 (PARP-1), a 116 kDa nuclear DNA-binding zinc finger enzyme that influences DNA repair in response to environmental stress. It catalyses the transfer of ADP-ribose units from NAD (+) to a number of nuclear acceptor molecules including chromatin. Caspases mediates proteolysis of PARP1 into 24-kDa NH2-terminal peptide and 85 to 89-kDa COOH-terminal fragment that traverses into the cytoplasm. The appearance of PARP fragments facilitates cellular disassembly and serves as an early marker of programmed cell death (apoptosis).

PAX2



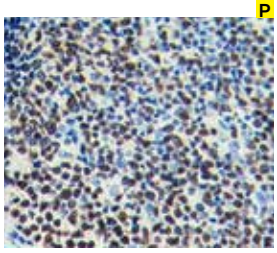
Kidney, Renal cell carcinoma tissue stained with Anti-PAX2 using DAB Chromogen

Clone:	PAX2/1105
Isotype:	IgG1, lambda
Source:	Mouse
Immunogen:	Human PAX2
Specificity:	PAX2
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC95-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC95-10M**
Xmatrx®	**AXC95-YCD, AXC95-50D**
NanoVip™®	**AXC95-4M**
Concentrated:	**MUC95-UC, MUC95-5UC**
Recommended Positive Control:	**FG-C95M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C95M (Xmatrx & NanoVip™)**

PAX2 (paired box 2) proteins are tissue specific transcription factors that belongs to “PAX family” which are active during early embryogenesis. It plays a critical role in the development of the nervous and excretory systems including the optic stalk, ear, midbrain-hindbrain junction, spinal cord, kidney, and urogenital tract. The expression of PAX2 is observed in condensing metanephric mesenchyme and in early epithelial structures in developing kidney but disappears as the tubular epithelium matures. Persistent expression of Pax-2 is seen in theundifferentiated epithelium of Wilms’ tumours.

PAX5



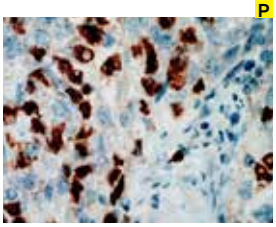
Tonsil tissue stained with Anti-PAX-5 using DAB Chromogen

Clone:	PAX5/3735
Isotype:	IgG1, lambda
Source:	Mouse
Immunogen:	A recombinant fragment of human PAX5 protein
Specificity:	PAX5
Localization:	Nucleus
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA49-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA49-10M**
Xmatrx®	**AXA49-YCD, AXA49-50D**
NanoVip™®	**AXA49-4M**
Concentrated:	**MUA49-UC, MUA49-5UC**
Recommended Positive Control:	**FG-A49M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A49M (Xmatrx & NanoVip™)**

The B-cell-specific activator protein, PAX-5, is a nuclear transcription factor which plays a major role in B-cell differentiation and proliferation. PAX-5 is expressed in the vast majority of B-cell malignancies. In addition, PAX-5 immunoreactivity is detected in subsets of epithelial and mesenchymal tumors, including poorly differentiated neuroendocrine carcinoma, mesonephric carcinoma, cervical carcinoma, small cell carcinomas, aggressive neuroblastoma, squamous cell carcinoma of the oral cavity, Wilms tumors, and alveolar rhabdomyosarcoma. PAX5 expression has also been detected in developing CNS and testis; therefore, PAX5 gene product may not only play an important role in B-cell differentiation, but also in neural development and spermatogenesis.

PAX-5



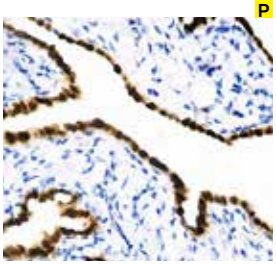
Lymph node tissue stained with Pax-5 using DAB Chromogen

Clone:	24/Pax-5
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human Pax-5 aa. 151-306
Specificity:	PAX-5
Localization:	Nucleus
Pre-treatment:	EZ-AR1
Manual/i6000:	HK521-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AM967-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM967-10M**
Xmatrx®	**AX967-YCD, AX967-50D**
NanoVip™®	**AX967-4M**
Concentrated:	**MU967-UC, MU967-5UC**
Recommended Positive Control:	**FG-967M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-967M (Xmatrx & NanoVip™)**

PAX5 is a member of the paired box (PAX) family of transcription factors. Paired box transcription factors are important regulators in early development and alterations in the expression of their genes are thought to contribute to neoplastic transformation. PAX5 is the B-cell lineage specific activator protein (BSAP) that is expressed at early but not late stages of B-cell differentiation. Its expression has also been detected in developing CNS and testis, therefore, PAX5 may not only play an important role in B-cell differentiation but also in neural development and spermatogenesis. Mutations in the gene can result in leukemia and acute lymphoblastic. The PAX5 expression at the protein level is reliably detected by immunohistochemistry in routine biopsies.

PAX8



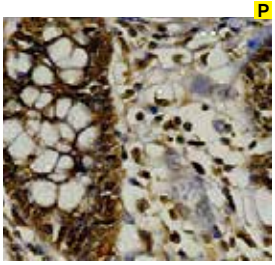
Fallopian Tube tissue stained with Anti-PAX8 using DAB Chromogen

Clone:	PAX8/2774R
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human PAX8
Specificity:	PAX8
Localization:	Nucleus
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ANB31-5M**
Ready-to-Use (Automated):	
***i*6000™**	**ANB31-10M**
Xmatrx®	**AYB31-YCD, AYB31-50D**
NanoVip™®	**AYB31-4M**
Concentrated:	**NUB31-UC, NUB31-5UC**
Recommended Positive Control:	**FG-B31N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B31N (Xmatrx & NanoVip™)**

PAX8 is a member of the paired box (PAX) family of transcription factors, typically containing a paired box domain, an octapeptide, and a paired-type homeodomain. PAX proteins play critically important roles in development by regulating transcriptional networks responsible for embryonic patterning and organogenesis; a subset of PAX proteins also maintain functional importance during postnatal development. It is expressed during organogenesis of thyroid gland, kidney and Mullerian system. Research studies have implicated genetic mutations that result in aberrant expression of PAX genes in a number of carcinoma subtypes (1-3), with members of subgroups II and III identified as potential mediators of tumor progression. PAX8 is a useful marker in distinguishing ovarian carcinoma from mammary carcinomas.

PAX-7



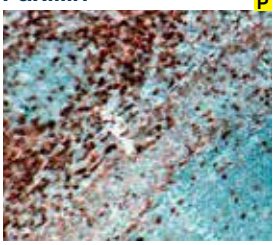
Intestine tissue stained with Anti-PAX-7 using DAB Chromogen

Clone:	EE-8
Isotype:	IgG2a
Source:	Mouse
Immunogen:	Human PAX-7
Specificity:	PAX-7
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB93-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB93-10M**
Xmatrx®	**AXB93-YCD, AXB93-50D**
NanoVip™®	**AXB93-4M**
Concentrated:	**MUB93-UC, MUB93-5UC**
Recommended Positive Control:	**FG-B93M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B93M (Xmatrx & NanoVip™)**

Paired box protein Pax-7 (PAX7) belongs to the Pax family of transcription factors, is involved in the specification, survival, maintenance, and self-renewal of skeletal muscle progenitors and myogenic progenitors. It is specifically expressed in cultured satellite cell-derived myoblasts and also in satellite cells residing in adult muscle. A chromosomal aberration relating to PAX7 has been linked to rhabdomyosarcoma 2 (RMS2) (also called alveolar rhabdomyosarcoma).

Paxillin



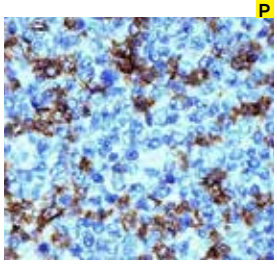
Tonsil tissue stained with Anti-Paxillin using DAB chromogen

Clone:	EP89
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues in N-terminus of human
Specificity:	Human Paxillin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN876-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN876-10M**
Xmatrx®	**AY876-YCD, AY876-50D**
NanoVip™®	**AY876-4M**
Concentrated:	**NU876-UC, NU876-5UC**
Recommended Positive Control:	**FG-876N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-876N (Xmatrx & NanoVip™)**

Paxillin is a multidomain cytoskeletal protein with a role in actin-membrane attachment at sites of cell adhesion to the extracellular matrix (focal adhesion). Paxillin?s C- terminal region consist of four LIM domains that interacts with cytoplasmic tail of beta-integrin to target paxillin to focal adhesion. ?The signaling activity of is controlled by N-terminus of Paxillin. Epithelial cells of various tissues, neuronal cells and mesenchymal derived cells express Paxillin. It has been reported that Paxillin is involved in tumor invasion and ? metastasis. Its expression in lung and liver carcinomas has been correlated with advanced tumor stage and metastasis.

PD-1



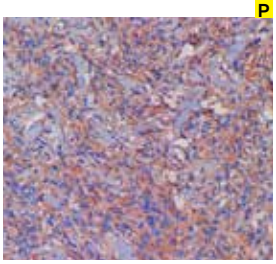
Lymph node tissue stained with Anti-PD-1 using DAB chromogen

Clone:	IHC001
Isotype:	-
Source:	Mouse
Immunogen:	PD-1
Specificity:	PD-1
Localization:	Cell membrane
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM922-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM922-10M**
Xmatrx®	**AX922-YCD, AX922-50D**
NanoVip™®	**AX922-4M**
Concentrated:	**MU922-UC, MU922-5UC**
Recommended Positive Control:	**FG-922M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-922M (Xmatrx & NanoVip™)**

PD-1, also known as programmed cell death protein 1 or CD279 (cluster of differentiation 279), is a cell surface receptor that belongs to the CD28 immunoglobulin super family and is expressed on T cells and pro-B cells. Studies have shown that PD-1/PD-L interaction function as an immune checkpoint for induction and maintenance of T-cells involved in peripheral tolerance and protects tissues from autoimmune attack. PD-1 down regulates the immune system which in turn reduces autoimmunity and promotes self-tolerance.

PDGFR BETA (CD140b)



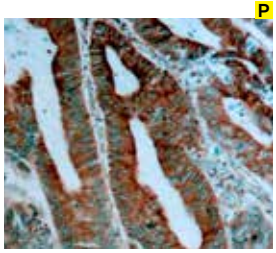
Skin tissue stained with Anti-CD140b using DAB chromogen

Clone:	RM303
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human PDGFR BETA (CD140b)
Specificity:	PDGFR BETA (CD140b)
Localization:	Cytoplasm
Pre-treatment:	EZ-AR1
Manual/i6000:	HK521-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AN992-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN992-10M**
Xmatrx®	**AY992-YCD, AY992-50D**
NanoVip™	**AY992-4M**
Concentrated:	**NU992-UC, NU992-5UC**
Recommended Positive Control:	**FG992NE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-992NE (Xmatrx&NanoVip™)**

Platelet derived growth factor receptors (PDGFR) are cell surface tyrosine receptors that act as a receptor for the platelet derived growth factors family. Alpha and Beta are two different subunits for PDGFR. They regulate many processes such as cell proliferation, cellular differentiation, cell growth, development, and play a major role in many diseases such as carcinomas. PDGFR beta has been implicated in establishing blood vessel formation and early hematopoeisis. Autocrine activation of PDGF signaling pathways is involved in certain gliomas, sarcomas, and leukemias.

PDCD4



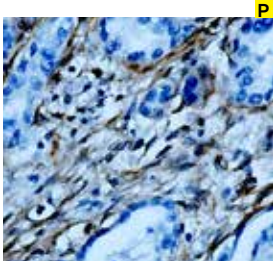
Colon carcinoma tissue stained with Anti-Human PDCD4 using DAB chromogen

Clone:	EP102
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues near the N-terminus of human PDCD4 protein
Specificity:	Human PDCD4
Localization:	Cytoplasm/Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN875-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN875-10M**
Xmatrx®	**AY875-YCD, AY875-50D**
NanoVip™®	**AY875-4M**
Concentrated:	**NU875-UC, NU875-5UC**
Recommended Positive Control:	**FG-875N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-875N (Xmatrx & NanoVip™)**

Programmed cell death protein 4 (PDCD4) was initially identified as a differentially expressed protein during apoptosis. It acts as a tumor suppressor that inhibits tumor promoter-induced neoplastic transformation. It down-regulates the expression of MAP4K1, thus inhibiting events important in driving invasion, namely, MAPK85 activation and consequent JUN-dependent transcription. PDCD4 expression has been found in both normal and tumor cells. Reduced expression of PDCD4 is frequently observed in tumors. Loss of PDCD4 expression has been correlated with tumor progression and prognosis in carcinomas of the lung, ovary, pancreas and esophagus. Nuclear expression of PDCD4 was associated with a longer disease-free and overall survival rate of esophageal carcinoma.

PDGFR-β



GIST tissue stained with Anti-PDGFR-β using DAB chromogen

Clone:	D-6
Isotype:	IgG2a
Source:	Mouse
Immunogen:	Human PDGFR-β
Specificity:	PDGFR-β
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC17-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC17-10M**
Xmatrx®	**AXC17-YCD, AXC17-50D**
NanoVip™®	**AXC17-4M**
Concentrated:	**MUC17-UC, MUC17-5UC**
Recommended Positive Control:	**FG-C17M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C17M (Xmatrx & NanoVip™)**

PDGFR-β (Platelet-derived growth factor receptor-beta) also designated CD140B antibody, is a cell surface tyrosine kinase receptor for the members of Platelet-derived growth factor receptor. These are mitogens for mesenchymal and glia derived cells and regulate diverse cellular functions by binding to and inducing the homo- and heterodimerization of two receptors (alpha and beta). It plays an important role in the regulation of embryonic development, cell proliferation, survival, differentiation, chemotaxis and migration. Also, it is considered to be essential for endothelial proliferation, migration and recruitment of pericytes and smooth muscle cells to form blood vessels.

PGP9.5 / UcHL1

P

Brain tissue stained with Anti-PGP9.5 using DAB chromogen

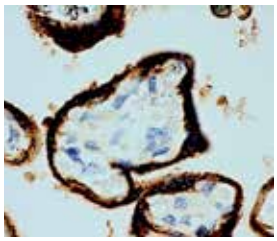
Clone:	UCHL1/775
Isotype:	IgG1, kappa
Source:	Mouse
Immunogen:	Recombinant human UCHL1 protein
Specificity:	PGP9.5 / UcHL1
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA27-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA27-10M**
Xmatrx®	**AXA27-YCD, AXA27-50D**
NanoVip™®	**AXA27-4M**
Concentrated:	**MUA27-UC, MUA27-5UC**
Recommended Positive Control:	**FG-A27M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A27M (Xmatrx & NanoVip™)**

This antibody reacts with a protein of 20-30kDa, identified as PGP9.5, also known as ubiquitin UchL1. PGP9.5 is highly expressed in neurons and to cells of the diffuse neuroendocrine system and their tumors. It is abundantly present in all neurons (accounts for 1-2% of total brain protein), expressed specifically in neurons and testis/ovary.[5][6] Although UCH-L1 protein expression is specific to neurons and testis/ovary tissue, it has been found to be expressed in certain lung-tumor cell lines.

P

Placental Alkaline Phosphatase (PLAP)



Placenta tissue stained with Anti-PLAP using DAB chromogen

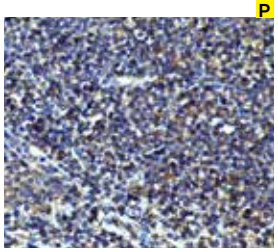
Clone:	PL8-F6
Isotype:	IgG
Source:	Mouse
Immunogen:	Purified human placental alkaline phosphatase
Specificity:	Placental alkaline phosphatase
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM228-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM228-10M**
Xmatrx®	**AX228-YCD, AX228-50D**
NanoVip™®	**AX228-4M**
Concentrated:	**MU228-UC, MU228-5UC**
Recommended Positive Control:	**FG-228M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-228M (Xmatrx & NanoVip™)**

Human Placental Alkaline Phosphatase (PLAP), a 60-70 kD oncofetal antigen, is a member of a family of membrane bound alkaline phosphatase enzymes and isoenzymes. PLAP and/or PLAP-like isoenzymes have been found to be expressed by malignant tumors of germ cell and non-germ cell origin. The antibody reacts with PLAP in syncytiotrophoblasts in placenta and also reacts with human germ cell tumors. This antibody stains positive in the cytoplasmic membrane and cytoplasm of positive cells.

PIT-1

P



Thyroid tissue stained with Anti-PIT-1 using DAB chromogen

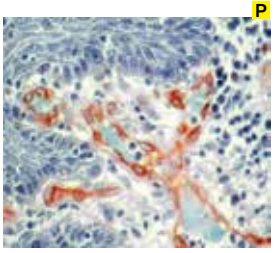
Clone:	PIT1/7262
Isotype:	IgG2b, kappa
Source:	Mouse
Immunogen:	Human PIT-1
Specificity:	PIT-1
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD10-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD10-10M**
Xmatrx®	**AXD10-YCD, AXD10-50D**
NanoVip™®	**AXD10-4M**
Concentrated:	**MUD10-UC, MUD10-5UC**
Recommended Positive Control:	**FG-D10M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D10M (Xmatrx & NanoVip™)**

PIT-1 (Pituitary-specific transcription factor 1) also known as POU1F1, GHF-1 (Growth hormone factor 1), CPHD1, is a transcription factor belongs to POU homeodomain family. It is essential for the anterior pituitary gland development and hormone expression in mammals. PIT1 is also important for regulation of five distinct hormone-producing cell lineages, including somatotropes, lactotropes, thyrotropes, corticotropes, and gonadotropes. Loss of Pit-1 expression results in combined pituitary hormone deficiency (CPHD) of growth hormone, Prolactin and thyroid stimulating hormone.

Vimentin, Non-Hematopoietic

P



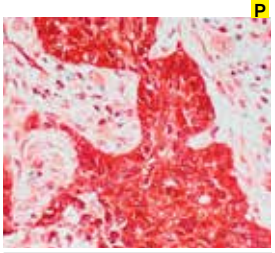
Leiomyoma tissue stained with Anti-Vimentin using DAB chromogen

Clone:	LN6
Isotype:	IgM
Source:	Mouse
Immunogen:	Human Thymic Nuclei
Specificity:	Non-hematopoietic vimentin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM163-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM163-10M**
Xmatrx®	**AX163-YCD, AX163-50D**
NanoVip™®	**AX163-4M**
Concentrated:	**MU163-UC, MU163-5UC**
Recommended Positive Control:	**FG-163M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-163M (Xmatrx & NanoVip™)**

LN6 recognizes a unique epitope of vimentin, a 60 kD protein, not expressed in cells of hematopoietic derivation. LN6 can be useful in the immunohistological study of soft tissue disorders. It reacts strongly with sarcomas, melanomas and meningomas. LN6 does not, however, stain leukocyte common antigen-positive tissues such as lymphomas and leukemias. In normal tissue, LN6 stains endothelium, muscle, fibroblasts, melanocytes, peripheral nerve, Sertoli cells, kidney mesangial cells and tubules, osteoblasts and periosteum. This antibody stains non-hematopoietic form of Vimentin in human sarcomas and normal cells of mesenchymal derivation but is nonreactive with cells of hematopoietic derivation.

Platelet-Derived Growth Factor (PDGF)



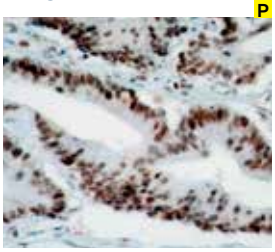
Squamous cell carcinoma tissue stained with Anti-PDGF using AEC chromogen

Clone:	Polyclonal
Source:	Rabbit
Immunogen:	Synthetic peptide based on PDGF-B sequence that shares high homology with PDGF-A forms
Specificity:	PDGF
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR376-5R**
Ready-to-Use (Automated):	
***i*6000™**	**AR376-10R**
Xmatrx®	**AW376-YCD, AW376-50D**
NanoVip™®	**AW376-4M**
Concentrated:	**PU376-UP, PU376-5UP**
Recommended Positive Control:	**FG-376P (Manual & i6000)**
Recommended Microchamber Slide:	**FB-376P (Xmatrx & NanoVip™)**

PDGF is one of the major factors activated in wound healing and may play an important role as an endogenous promoter in epithelial tumor foundation. PDGF can lead to excessive production of extracellular matrix components including various collagens, proteoglycans, and laminin. PDGF is one of the most potent activators of stromal cells. Proliferation and migration are important responses of mesangial cell injury. PDGFR is a prime candidate to mediate these responses in glomerular disease. PDGF and PDGFR are upregulated in the mesangium during glomerular injury. The monoclonal antibody to PDGF-B has been studied for its potential clinical utility in wound healing and revascularization.

PMS2



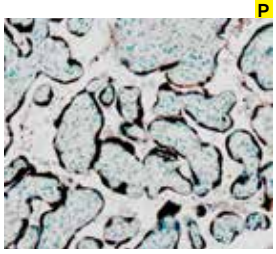
Colon carcinoma tissue stained with anti-PMS2 using DAB chromogen

Clone:	EP51
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues in human PMS2 protein
Specificity:	Human PMS2
Localization:	Nucleus
Pre-treatment:	EZ-AR1
Manual/i6000:	HK521-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AN844-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AN844-10ME**
Xmatrx®	**AN844-YCDE, AN844-50DE**
NanoVip™®	**AN844-4ME**
Concentrated:	**NU844-UCE, NU844-5UCE**
Recommended Positive Control:	**FG-844NE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-844NE (Xmatrx & NanoVip™)**

PMS2, a mismatch repair endonuclease, is a member of a family of genes involved in DNA mismatch repair. Carriers of the mismatch repair gene mutations have a high lifetime risk of developing Hereditary Non- Polyposis Colon Carcinoma (HNPCC) and several other carcinomas including endometrial carcinoma due to microsatellite instability (MSI) caused by accumulation of DNA replication errors in proliferating cells.

Placental Lactogen (hPL)



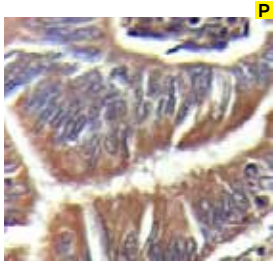
Placenta tissue stained with Anti-Hpl using DAB chromogen

Clone:	Polyclonal
Source:	Rabbit
Immunogen:	Human placental lactogen purified from human urine
Specificity:	Human Placental Lactogen (hPL)
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR040-5R**
Ready-to-Use (Automated):	
***i*6000™**	**AR040-10R**
Xmatrx®	**AW040-YCD, AW040-50D**
NanoVip™®	**AW040-4M**
Concentrated:	**PU040-UP, PU040-5UP**
Recommended Positive Control:	**FG-040P (Manual & i6000)**
Recommended Microchamber Slide:	**FB-040P (Xmatrx & NanoVip™)**

Human Placental Lactogen (hPL) can be demonstrated in human placental tissue and in the serum of pregnant women. Human placental lactogen has been identified in some breast carcinomas and in trophoblastic and nontrophoblastic tumors of the placenta, and has been used as a serum or tissue marker for trophoblastic and nontrophoblastic neoplasms. This antibody stains hPL in cytoplasm of trophoblast and other positive cells.

Podoplanin



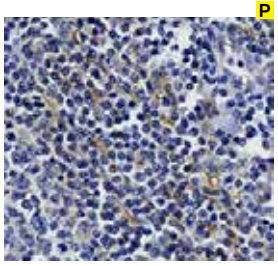
Uterus tissue stained with Anti-Podoplanin using DAB Chromogen

Clone:	PDPN/1433
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human Podoplanin
Specificity:	Podoplanin
Localization:	Mem & Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB91-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB91-10M**
Xmatrx®	**AXB91-YCD, AXB91-50D**
NanoVip™®	**AXB91-4M**
Concentrated:	**MUB91-UC, MUB91-5UC**
Recommended Positive Control:	**FG-B91M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B91M (Xmatrx & NanoVip™)**

Podoplanin, also known as glycoprotein 36 (gp36), PA2.26 antigen, T1-alpha (T1A), and aggrus, is a 36 kDa type I transmembrane sialoglycoprotein present on the surface of podocytes in kidney glomeruli and the parietal cells of Bowman?s capsule. It is localizes in stromal cells of peripheral lymphoid tissue, follicular DCs and thymic epithelial cells. Podoplanin plays a crucial role in maintaining the unique shape of podocytes and serves as a ligand for CLEC-2. It is also directly involved in cell migration, aids metastases formation and tumor cell invasion of tissue. Research studies have shown that Podoplanin expression is upregulated in a number of tumor types including colorectal carcinomas, oral squamous cell carcinomas, and germ cell tumors, with higher expression levels often associated with more aggressive tumors.

Podoplanin



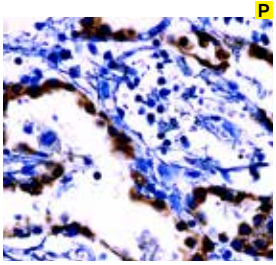
Tonsil tissue stained with Anti-Podoplanin using DAB Chromogen

Clone:	PDPN/4009R
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human Podoplanin
Specificity:	Podoplanin
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ANB95-5M**
Ready-to-Use (Automated):	
***i*6000™**	**ANB95-10M**
Xmatrx®	**AYB95-YCD, AYB95-50D**
NanoVip™®	**AYB95-4M**
Concentrated:	**NUB95-UC, NUB95-5UC**
Recommended Positive Control:	**FG-B95N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B95N (Xmatrx & NanoVip™)**

Podoplanin, also known as glycoprotein 36 (gp36), PA2.26 antigen, T1-alpha (T1A), and aggrus, is a 36 kDa type I transmembrane sialoglycoprotein present on the surface of podocytes in kidney glomeruli and the parietal cells of Bowman's capsule. It is localizes in stromal cells of peripheral lymphoid tissue, follicular DCs and thymic epithelial cells. Podoplanin plays a crucial role in maintaining the unique shape of podocytes and serves as a ligand for CLEC-2. It is also directly involved in cell migration, aids metastases formation and tumor cell invasion of tissue. Research studies have shown that Podoplanin expression is upregulated in a number of tumor types including colorectal carcinomas, oral squamous cell carcinomas, and germ cell tumors, with higher expression levels often associated with more aggressive tumors.

Progesterone Receptor



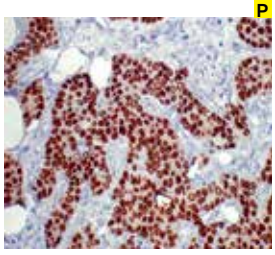
Breast carcinoma stained with Anti-Progesterone Receptor using DAB Chromogen

Clone:	PGR/6854R
Isotype:	IgG, kappa
Source:	Rabbit
Immunogen:	Human Progesterone Receptor
Specificity:	Progesterone Receptor
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AND06-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AND06-10M**
Xmatrx®	**AYD06-YCD, AYD06-50D**
NanoVip™®	**AYD06-4M**
Concentrated:	**NUD06-UC, NUD06-5UC**
Recommended Positive Control:	**FG-D06N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D06N (Xmatrx & NanoVip™)**

Progesterone receptor (PR) is a 946 amino acid ligand-activated transcription factor that belongs to the steroid super family of nuclear receptors. It is plays a central role in reproductive events associated with the establishment and maintenance of pregnancy. Human progesterone receptor (PR) is expressed as two forms: the full length 120 kDa protein (PR-B) and the short form 94 kDa protein (PR-A).

Progesterone Receptor



Breast carcinoma tissue stained with Anti-PR using DAB chromogen

Clone:	1A6
Isotype:	IgG1
Source:	Mouse
Immunogen:	Synthetic peptide of progesterone receptor
Specificity:	Progesterone Receptor
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM172-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AM172-10ME**
Xmatrx®	**AX172-YCDE, AX172-50DE**
NanoVip™®	**AX172-4ME**
Concentrated:	**MU172-UCE, MU172-5UCE**
Recommended Positive Control:	**FG-172ME (Manual & i6000)**
Recommended Microchamber Slide:	**FB-172ME(Xmatrx & NanoVip™)**

The presence of progesterone receptor in human breast carcinoma has been proposed as a mechanism whereby tumor cells respond to estrogen, and its presence may therefore serve as a marker for enhanced hormone responsiveness. Historically, estrogen receptor-positive/progesterone receptor-positive breast carcinoma patients have demonstrated a better response to endocrine therapy than estrogen receptor-positive/ progesterone receptor-negative patients.

Progesterone Receptor

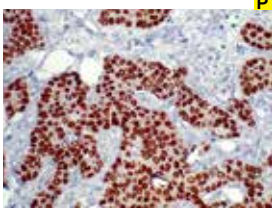
Breast carcinoma tissue stained with Anti-PR using DAB chromogen

Clone:	EP2
Isotype:	IgG
Source:	Rabbit
Immunogen:	Purified human progesterone receptor protein
Specificity:	Progesterone Receptor
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN711-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AN711-10ME**
Xmatrx®	**AN711-YCDE, AN711-50DE**
NanoVip™®	**AN711-4ME**
Concentrated:	**NU711-UCE, NU711-5UCE**
Recommended Positive Control:	**FG-711NE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-711NE (Xmatrx & NanoVip™)**

The human progesterone receptor (PR), is a ligand-activated transcription factor and is a member of the steroid receptor family. PR exists in human as two isoforms; PR-A (94 kD) which lacks the first 164 amino acids of PR-B and PR-B(114 kD).This anti-PR recognizes both PR-A and B. It labels epithelial cells of breast, ovary and endometrium. This antibody stains human progesterone receptor in tissue sections by immunohistochemical techniques.

Progesterone Receptor (InSite® PR)



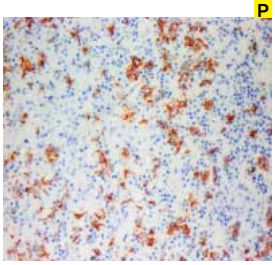
Breast carcinoma tissue stained with Anti-PR using AEC chromogen

Clone:	PR88
Isotype:	IgG1 Kappa
Source:	Mouse
Immunogen:	Purified human progesterone receptor protein
Specificity:	Progesterone Receptor
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM328-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AM328-10ME**
Xmatrx®	**AX328-YCDE, AX328-50DE**
NanoVip™®	**AX328-4ME**
Concentrated:	**MU328-UCE, MU328-5UCE**
Recommended Positive Control:	**FG-328ME (Manual & i6000)**
Recommended Microchamber Slide:	**FB-328ME(Xmatrx & NanoVip™)**

The use of monoclonal antibodies to determine Progesterone Receptor status increases the predictive value of immunohistochemical analysis with respect to the response of human tumors to hormonal modulation. Historically, estrogen receptor-positive/progesterone receptor-positive breast carcinoma patients have demonstrated a better response to endocrine therapy than estrogen receptor-positive/ progesterone receptor-negative patients. This antibody stains positive in nucleus of the receptor positive cells.

Prolactin



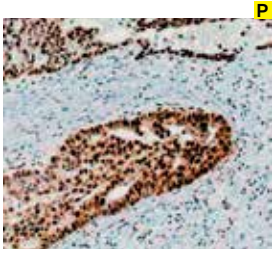
Pituitary tissue stained with Anti-Prolactin using DAB Chromogen

Clone:	A-5
Isotype:	IgG2a, Kappa
Source:	Mouse
Immunogen:	Human Prostein
Specificity:	Prostein
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM978-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM978-10M**
Xmatrx®	**AX978-YCD, AX978-50D**
NanoVip™®	**AX978-4M**
Concentrated:	**MU978-UC, MU978-5UC**
Recommended Positive Control:	**FG-978M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-978M (Xmatrx & NanoVip™)**

Prolactin is known to be a protein hormone that promotes lactation in mammals. Present in the anterior region of the pituitary gland, it has the ability to promote lactation in response to the suckling stimulus of hungry young mammals. The protein hormone Prolactin is almost always associated solely with the pituitary gland but worth noting, is the fact that it is also synthesized within the central nervous system, the immune system, the uterus and its associated tissues of conception, and even the mammary gland itself.

Proliferating Cell Nuclear Antigen (PCNA)



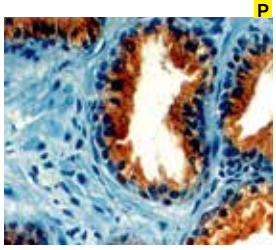
Breast carcinoma stained with Anti-PCNA using DAB chromogen

Clone:	PC10
Isotype:	IgG2a
Source:	Mouse
Immunogen:	Rat PCNA synthesized with the protein A expression vector pR1T2T
Specificity:	PCNA
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM252-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM252-10M**
Xmatrx®	**AX252-YCD, AX252-50D**
NanoVip™®	**AX252-4M**
Concentrated:	**MU252-UC, MU252-5UC**
Recommended Positive Control:	**FG-252M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-252M (Xmatrx & NanoVip™)**

PCNA, also known as cyclin, is a 36 kD nonhistone nuclear protein that plays a fundamental role in the initiation of cell proliferation. PCNA is a cell cycle-regulated protein that preferentially occurs in dividing cells and is undetectable or present in small amounts in resting cells. Immunoperoxidase staining for PCNA in benign tissues has revealed positive nuclear staining in normal colonic crypt epithelium, gastric glandular cells, germinal center cells of lymph node, basal cells of skin, and renal tubular epithelial cells. The monoclonal antibody to PCNA might be an acceptable alternative to Ki-67 labeling in routinely processed tissues.

Prostate Specific Acid Phosphatase (PSAP)



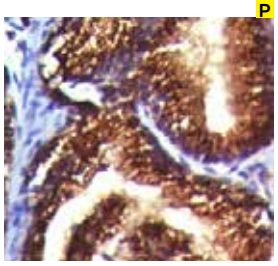
Prostate tissue stained with Anti-PSAP using DAB chromogen

Clone:	B01-94-21M-NA
Isotype:	IgG1 Kappa
Source:	Mouse
Immunogen:	Partially purified prostate acid phosphatase from human seminal plasma
Specificity:	Prostate Specific Acid Phosphatase (PSAP)
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM013-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AM013-10ME**
Xmatrx®	**AX013-YCDE, AX013-50DE**
NanoVip™®	**AX013-4ME**
Concentrated:	**MU013-UCE, MU013-5UCE**
Recommended Positive Control:	**FG-013ME (Manual & i6000)**
Recommended Microchamber Slide:	**FB-013ME(Xmatrx & NanoVip™)**

Prostate specific acid phosphatase (PSAP) is a 100 kD glycoprotein present in high concentration in the prostate gland and its secretions. PSAP is measured clinically because its level often rises in the serum in cases of prostatic carcinoma. By immunohistochemical analysis PSAP has been found concentrated within the large secretory vacuoles of the supranuclear portion of the prostatic columnar epithelial cell. In hyperplastic prostates and in benign prostatic tissue adjacent to the prostatic carcinoma, PSAP activity is limited to the acinar or ductal columnar epithelial cells and adjacent luminal content.

Prostein



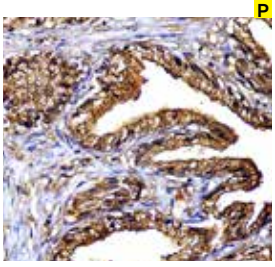
Prostate tissue stained with Anti-Prostein using DAB Chromogen

Clone:	A-5
Isotype:	IgG2a, Kappa
Source:	Mouse
Immunogen:	Human Prostein
Specificity:	Prostein
Localization:	Cyt & Mem
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB54-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB54-10M**
Xmatrx®	**AXB54-YCD, AXB54-50D**
NanoVip™®	**AXB54-4M**
Concentrated:	**MUB54-UC, MUB54-5UC**
Recommended Positive Control:	**FG-B54M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B54M (Xmatrx & NanoVip™)**

Prostein (Prostate carcinoma-associated protein 6) is a prostatespecific, 553 amino acid type IIIa plasma transmembrane protein that is upregulated by androgens. It has a perinuclearlike staining pattern, as expression is found in the Golgi complex of prostate cells. Prostein was positive in 99% of metastatic prostate adenocarcinomas while 97% of cases were positive for PSA. Prostein in conjunction with PSA improves identification of prostatic origin in unknown primary lesions, when staining alone with Prostein or PSA. Prostein is useful in diagnosing and monitoring prostate carcinoma.

PSAP



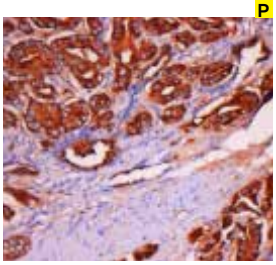
Prostate tissue stained with Anti-PSAP using DAB Chromogen

Clone:	PASE/4LJ
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human PSAP
Specificity:	PSAP
Localization:	cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB55-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB55-10M**
Xmatrx®	**AXB55-YCD, AXB55-50D**
NanoVip™®	**AXB55-4M**
Concentrated:	**MUB55-UC, MUB55-5UC**
Recommended Positive Control:	**FG-B55M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B55M (Xmatrx & NanoVip™)**

Prostatic Acid Phosphatase (ACPP or PAP) is a member of the histidine acid phosphatase family. It is suggested to act as a hydrolase to split phospharyl choline in semen and as a transferase.It is synthesized under androgen regulation and is secreted by the epithelial cells of the prostate gland. Anti-PSAP reacts with prostatic acid phosphatase in the glandular epithelium of normal and hyperplastic prostate, and adenocarcinoma of the prostate. This antibody is useful in identifying prostatic origin of tumors in the metastatic setting.

PSA



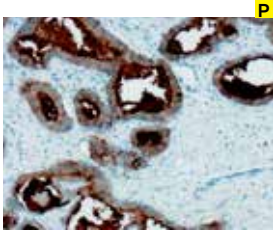
Tonsil tissue stained with Anti-PSA using DAB Chromogen

Clone:	IHC654
Isotype:	IgG
Source:	Mouse
Immunogen:	Human PSA
Specificity:	PSA
Localization:	Cytoplasm
Pre-treatment:	EZ-AR1
Manual/i6000:	HK521-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AM985-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM985-10M**
Xmatrx®	**AX985-YCD, AX985-50D**
NanoVip™®	**AX985-4M**
Concentrated:	**MU985-UC, MU985-5UC**
Recommended Positive Control:	**FG-985M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-985M (Xmatrx & NanoVip™)**

PSA is a glycoprotein discovered from human seminal plasma. As a member of the human kallikrein gene family, PSA is a serine protease secreted by the prostatic epithelium and the epithelial lining of the periurethral glands. As a tumor marker, PSA was found with relatively higher sensitivity than that of prostatic acid phosphatase (PAP) in the screening of prostate carcinoma.

PSMA



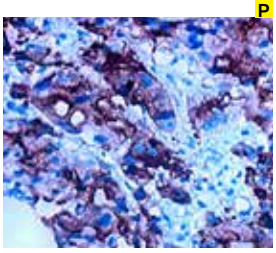
Prostate tissue stained with Anti-PSMA using DAB Chromogen

Clone:	EP192
Isotype:	IgG1
Source:	Rabbit
Immunogen:	Human PSMA
Specificity:	PSMA
Localization:	Mem/Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN714-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN714-10M**
Xmatrx®	**AY714-YCD, AY714-50D**
NanoVip™®	**AY714-4M**
Concentrated:	**NU714-UC, NU714-5UC**
Recommended Positive Control:	**FG-714N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-714N (Xmatrx & NanoVip™)**

Prostate Specific Membrane Antigen (PSMA) is a surface II membrane glycoprotein in secretory cells of the prostatic epithelium, with expression ?restricted to normal prostate tissue, primary, metastatic prostate carcinoma and the neovasculature of various nonprostatic epithelial malignancies. PSMA is vastly expressed by prostate carcinomas, and the expression enhances with androgen-independence, tumor aggressiveness, disease recurrence and metastatic disease. Over expression of PSMA is correlated with high tumor grade, non-diploid tumors, and advanced tumor stage.

PSMA



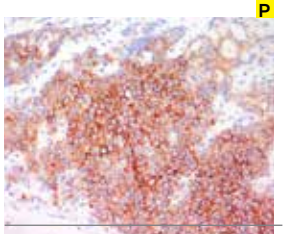
Prostate tissue stained with Anti-PSMA using DAB chromogen

Clone:	SP29
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide derived from the C-terminus of human PSMA.
Specificity:	Human PSMA
Localization:	Membrane / cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN768-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN768-10M**
Xmatrx®	**AY768-YCD, AY768-50D**
NanoVip™®	**AY768-4M**
Concentrated:	**NU768-UC, NU768-5UC**
Recommended Positive Control:	**FG-768N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-768N (Xmatrx & NanoVip™)**

Prostate Specific Membrane Antigen (PSMA) is a surface II membrane glycoprotein in secretory cells of the prostatic epithelium, with expression ?restricted to normal prostate tissue, primary, metastatic prostate carcinoma and the neovasculature of various nonprostatic epithelial malignancies. PSMA is vastly expressed by prostate carcinomas, and the expression enhances with androgen-independence, tumor aggressiveness, disease recurrence and metastatic disease.

P-Tyr



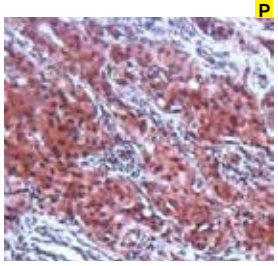
Prostate carcinoma tissue stained with Anti-p-Tyr using DAB chromogen

Clone:	PY793
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Phosphotyrosine conjugated to BSA
Specificity:	P-Tyr
Localization:	Cell membrane
Pre-treatment:	EZ-AR1 Elegance
Manual/i6000:	HK546-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AM938-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AM938-10ME**
Xmatrx®	**AX938-YCDE, AX938-50DE**
NanoVip™®	**AX938-4ME**
Concentrated:	**MU938-UCE, MU938-5UCE**
Recommended Positive Control:	**FG-938ME (Manual & i6000)**
Recommended Microchamber Slide:	**FB-938ME(Xmatrx & NanoVip™)**

Protein phosphorylation is a fundamental event in the regulation of a large number of intracellular processes. Phosphorylation of specific tyrosine residues is the result of activation or stimulation of their respective protein tyrosine kinases. The phosphorylated proteins can be auto-phosphorylated kinases or certain cellular protein substrates. Tyrosine-phosphorylated proteins are involved in signal transduction and in the regulation of cell proliferation.

PTEN



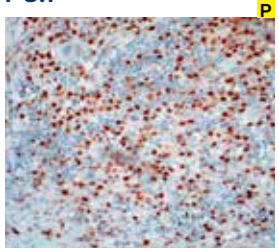
Breast carcinoma tissue stained with Anti-PTEN using DAB Chromogen

Clone:	6H2.1
Isotype:	IgG2a
Source:	Mouse
Immunogen:	Human PTEN
Specificity:	PTEN
Localization:	Membrane/Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB26-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB26-10M**
Xmatrx®	**AXB26-YCD, AXB26-50D**
NanoVip™®	**AXB26-4M**
Concentrated:	**MUB26-UC, MUB26-5UC**
Recommended Positive Control:	**FG-B26M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B26M (Xmatrx & NanoVip™)**

Phosphatase and tensin homologue deleted on chromosome TEN (at 10q23) (PTEN) is a tumor suppressor and a member in the PI3K/PTEN/Akt pathway. PTEN gene encodes a 403 amino acid cytosolic lipid phosphatase that negatively regulates AKT activity by dephosphorylating phosphatidylinositol 3,4,5-trisphosphate (PIP3). The defects of PTEN have been implicated in human carcinomas from breast, prostate, thyroid, skin, endometrium, head and neck, and brain. Up to 50-60 percent of advanced prostate carcinomas show abnormal PTEN gene expression or loss of protein expression.

PU.1



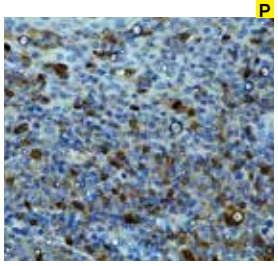
Lymphoma tissue stained with Anti-Human PU.1 using DAB chromogen

Clone:	EP18
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues near the N-terminus of human transcription factor PU.1 protein
Specificity:	Human PU.1
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN843-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN843-10M**
Xmatrx®	**AY843-YCD, AY843-50D**
NanoVip™®	**AY843-4M**
Concentrated:	**NU843-UC, NU843-5UC**
Recommended Positive Control:	**FG-843N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-843N (Xmatrx & NanoVip™)**

PU.1 is a member of the Ets family of transcription factors and is required for the development of multiple hematopoietic lineages. It plays a pivotal role in normal myeloid differentiation, and regulates the expression of immunoglobulin and other genes that are important for B cell development. PU.1 stains B lymphocyte in germinal center and mantle B cell, but not plasma cell. It labels many types of B cell lymphoma including mantle cell lymphoma, but it is not expressed in classical Hodgkin lymphoma (cHL). The lack of transcription factor PU.1 protein expression in cHL, a lympho proliferative disease of predominantly B-cell origin, likely contributes to the lack of immunoglobulin expression and incomplete B-cell phenotype characteristic of the Reed-Sternberg cells in cHL.

Pygopus 2



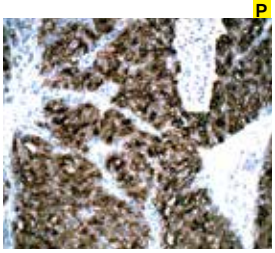
Tonsil tissue stained with Anti-Pygopus 2 using DAB Chromogen

Clone:	B-12
Isotype:	IgG2a
Source:	Mouse
Immunogen:	Human Pygopus 2
Specificity:	Pygopus 2
Localization:	Nuc & Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC44-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC44-10M**
Xmatrx®	**AXC44-YCD, AXC44-50D**
NanoVip™®	**AXC44-4M**
Concentrated:	**MUC44-UC, MUC44-5UC**
Recommended Positive Control:	**FG-C44M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C44M (Xmatrx & NanoVip™)**

Pygopus 2 (also designated as PYGO2) is a 41 kDa, 406 amino acid transcriptional Coactivator. It contains three domains- an N terminal NLS, a proline-rich region and a zinc-finger PHD-type domain that is involved in Wnt signaling pathway. Pygopus 2 is localized to nucleus and acts in concert with BCL-9 and TCF to retain beta -Catenin during Wnt-signaling. Pygopus 2 overexpression enhances primary tumor growth and local invasion to draining lymph nodes in breast carcinoma, Prostate carcinoma, advanced NSCLC, gliomas, Colorectal Carcinomas.

Renal Cell Carcinoma (RCC)



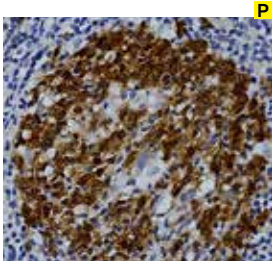
Renal Cell carcinoma tissue stained with Anti-RCC using DAB chromogen

Clone:	RCC-26
Isotype:	IgG1/K
Source:	Mouse
Immunogen:	Human RCC
Specificity:	Renal Glycoprotein
Localization:	Cytoplasm
Pre-treatment:	EZ-AR1
Manual/i6000:	HK521-XAK
Xmatrx:	HX031
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AM543-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM543-10M**
Xmatrx®	**AX543-YCD, AX543-50D**
NanoVip™®	**AX543-4M**
Concentrated:	**MU543-UC, MU543-5UC**
Recommended Positive Control:	**FG-543M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-543M (Xmatrx & NanoVip™)**

Renal cell carcinoma, also known by a gurnistical tumor, is the most common form of kidney carcinoma arising from the renal tubule. RCC antibody recognizes a 200 kD glycoprotein localized in the brush border of the proximal renal tubule. It immunoreacts with approximately 90% of primary renal cell carcinomas and approximately 85% of metastatic renal cellcarcinomas. Other tumors that may react with this antibody are parathyroid adenoma, an occasional breast carcinoma. Nephroblastoma, oncocytoma, mesoblastic nephroma, transitional cell carcinoma, and angiomyolipoma are not labeled with this antibody

R1



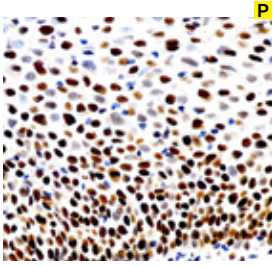
Tonsil tissue stained with Anti-R1 using DAB Chromogen

Clone:	A-10
Isotype:	IgG2b, kappa
Source:	Mouse
Immunogen:	Human R1
Specificity:	R1
Localization:	Cyt & Mem
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC49-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC49-10M**
Xmatrx®	**AXC49-YCD, AXC49-50D**
NanoVip™®	**AXC49-4M**
Concentrated:	**MUC49-UC, MUC49-5UC**
Recommended Positive Control:	**FG-C49M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C49M (Xmatrx & NanoVip™)**

R1 subunit contains allosteric regulatory sites and is present throughout the cell division cycle, but downregulated in quiescent cells. R1 is involved in carcinogenesis, tumor progression and alterations in the gene is associated with Beckwith-Wiedemann syndrome, Wilms tumor, rhabdomyosarcoma, adrenocrotical carcinoma, and lung, ovarian, and breast carcinoma.

Retinoblastoma



Tonsil tissue stained with Anti-Retinoblastoma using DAB Chromogen

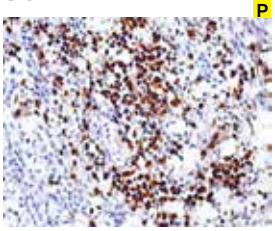
Clone:	13A10
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human Retinoblastoma
Specificity:	Retinoblastoma
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB61-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB61-10M**
Xmatrx®	**AXB61-YCD, AXB61-50D**
NanoVip™®	**AXB61-4M**
Concentrated:	**MUB61-UC, MUB61-5UC**
Recommended Positive Control:	**FG-B61M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B61M (Xmatrx & NanoVip™)**

Retinoblastoma gene / protein. Tumor suppressor gene at 13q14 it Encodes a 110-114 kDa nuclear protein that plays an important role in cell cycle progression by regulating cell cycle arrest at G1-S. Retinoblastoma (Rb) is a rare tumor of retina with mutations at chromosome 13Activation of ATF-2 initiate's expression of TGF-beta2 which in turn inhibits transcription of genes affecting cell growth. Bilateral mutation of the Rb gene may play a role in the development of malignant tumors.

SOX-11

P



Lymph node tissue stained with Anti-Sox-11 using DAB chromogen

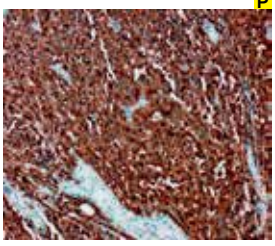
Clone:	SOX11/7236
Isotype:	IgG2b, kappa
Source:	Mouse
Immunogen:	Human SOX-11
Specificity:	SOX-11
Localization:	Nuc
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD15-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD15-10M**
Xmatrx®	**AXD15-YCD, AXD15-50D**
NanoVip™®	**AXD15-4M**
Concentrated:	**MUD15-UC, MUD15-5UC**
Recommended Positive Control:	**FG-D15M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D15M (Xmatrx & NanoVip™)**

Sox-11 is a neural transcription factor that belongs to group C SOX (SRY-related HMG-box) transcription factor family. It is involved in the embryonic neurogenesis and plays a role in epithelial-mesenchymal interactions, tissue modelling during development, neuronal cell proliferation, and survival. SOX-11 is also involved in tumorogenesis and adult neurogenesis. Its expression is prominent in the periventricular cells of the developing central nervous system, Mantle cell lymphoma, and in subsets of hairy cell leukaemia, B cell lymphoblastic leukaemia, Burkitt lymphomas, but is not expressed in other B cell lymphomas or in normal B lymphocytes. Sox11 is also expressed in malignant gliomas and epithelial ovarian carcinoma

S100-β

P



Melanoma stained with Anti-S100-β antibody using DAB chromogen

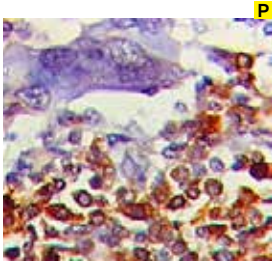
Clone:	EP32
Isotype:	IgG1
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues on the C-terminus of human S100 Beta protein
Specificity:	S100 Beta protein
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN713-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN713-10M**
Xmatrx®	**AY713-YCD, AY713-50D**
NanoVip™®	**AY713-4M**
Concentrated:	**NU713-UC, NU713-5UC**
Recommended Positive Control:	**FG-713N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-713N (Xmatrx & NanoVip™)**

S100 belongs to the family of calcium binding proteins such as calmodulin and troponin C. S100 Beta is abundant in glial cells of the central and peripheral nervous system, in melanocytes, chondrocytes, and adipocytes. It also labels Langerhans cells, histiocytes, epithelial, myoepithelial cells and integrating reticular cells of lymphoid tissue, and tumors originated from these cells. S100 Beta is a useful marker for diagnosis of melanoma, tumors of nerves system.

RRM1

P



Colon carcinoma stained with Anti-RRM1 using DAB Chromogen

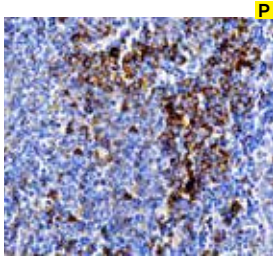
Clone:	RRM1/4372R
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human RRM1
Specificity:	RRM1
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ANC43-5M**
Ready-to-Use (Automated):	
***i*6000™**	**ANC43-10M**
Xmatrx®	**AYC43-YCD, AYC43-50D**
NanoVip™®	**AYC43-4M**
Concentrated:	**NUC43-UC, NUC43-5UC**
Recommended Positive Control:	**FG-C43N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C43N (Xmatrx & NanoVip™)**

RRM1 (Ribonucleotide reductase M1) a 90kDa polypeptide is one of two non-identical subunits of ribonucleoside-diphosphate reductase (RNR), an enzyme essential for the synthesis of de novo deoxyribonucleotides prior to DNA synthesis in S phase of dividing cells. It is the largest subunit of RNR and is present throughout the cell division cycle but downregulated in non-dividing quiescent cells.RRM1 is found to be involved in tumor progression and carcinogenesis, and its expression is correlated with resistance to chemotherapy in non-small cell lung carcinoma.

SLAMF7

P



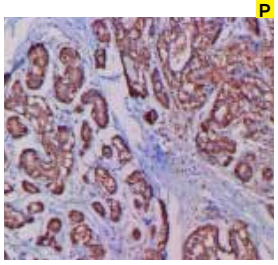
Tonsil tissue stained with Anti-SLAMF7 using DAB Chromogen

Clone:	SLAMF7/3649
Isotype:	IgG1, kappa
Source:	Mouse
Immunogen:	Human SLAMF7
Specificity:	SLAMF7
Localization:	Membrane
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD33-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD33-10M**
Xmatrx®	**AXD33-YCD, AXD33-50D**
NanoVip™®	**AXD33-4M**
Concentrated:	**MUD33-UC, MUD33-5UC**
Recommended Positive Control:	**FG-D33M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D33M (Xmatrx & NanoVip™)**

SLAMF7 (also known as CS1 or CD319 or CRACC) is a hemophilic single pass type I transmembrane protein belonging to the SLAM (signaling lymphocytic activation molecule) family of receptors. It serves as a receptor on immune cells, including natural killer (NK) cells and may play a role in lymphocyte adhesion. SLAMF7 mediates NK cell activation through a SAP-independent extracellular signal-regulated ERK-mediated pathway and also involved in phagocytosis of hematopoietic tumor cells independent of signaling lymphocyte activation molecule-associated protein (SAP) adaptors. SLAMF-7 is expressed in spleen, lymph node, bone marrow, appendix, small intestine, stomach, lung, trachea, peripheral blood leukocytes, on natural killer (NK) cells, T cells, multiple myeloma cells and stimulated B cells

S100B



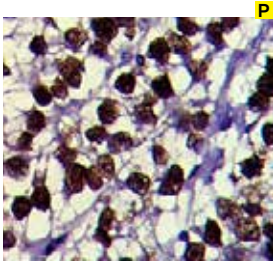
Melanoma tissue stained with Anti-RRM1 using DAB Chromogen

Clone:	Polyclonal
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human S100B
Specificity:	S100B
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR249-5R**
Ready-to-Use (Automated):	
***i*6000™**	**AR249-10R**
Xmatrx®	**AW249-YCD, AW249-50D**
NanoVip™®	**AW249-4M**
Concentrated:	**PU249-UP, PU249-5UP**
Recommended Positive Control:	**FG-249P (Manual & i6000)**
Recommended Microchamber Slide:	**FB-249P (Xmatrx & NanoVip™)**

S100B protein is part of the S100 family of proteins. S100B is a calcium binding peptide that has 2 EF-hand calcium-binding motifs. S100 proteins are localized in the cytoplasm and/or nucleus of a wide range of cells, and involved in the regulation of a number of cellular processes such as cell cycle progression and differentiation. S100B has been implicated in having many functions including neurite expansion, proliferation of melanoma cells, inhibition of Protein kinase C mediated phosphorylation, astrocytosis, axonal proliferation, inhibition of microtubule assembly and stimulation of Calcium ion fluxes.

SALL4



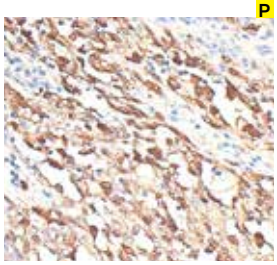
Testis tissue stained with Anti-SALL4 using DAB Chromogen

Clone:	6E3
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human SALL4
Specificity:	SALL4
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB18-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB18-10M**
Xmatrx®	**AXB18-YCD, AXB18-50D**
NanoVip™®	**AXB18-4M**
Concentrated:	**MUB18-UC, MUB18-5UC**
Recommended Positive Control:	**FG-B18M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B18M (Xmatrx & NanoVip™)**

Sal-like protein 4 (SALL4) is a zinc-finger transcription factor highly expressed during development. Sall4 is expressed very early in development with other pluripotency regulators, such asOct-4 and Nanog. It serves as a master regulator of embryonic pluripotency by modulating Oct4 and is involved in processes associated with stem cell activities. SALL4 expression in germ cells makes it a useful sensitive and specific diagnostic marker for germ cell tumors such as seminomas, embryonal carcinoma, and yolk sac tumors. SALL4 expression is also seen in the spermatogonia of normal testis. Anti-SALL4 antibody also stains most cases of teratoma and the mononucleated trophoblastic cells in choriocarcinomas.

S100B



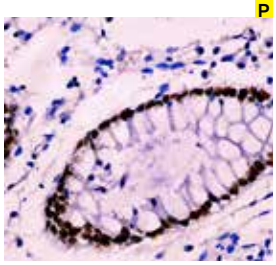
Human Melanoma stained with Anti-S100B using DAB Chromogen

Clone:	S100B/1012
Isotype:	IgG2a
Source:	Mouse
Immunogen:	Human S100B
Specificity:	S100B
Localization:	Nuc/Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA15-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA15-10M**
Xmatrx®	**AXA15-YCD, AXA15-50D**
NanoVip™®	**AXA15-4M**
Concentrated:	**MUA15-UC, MUA15-5UC**
Recommended Positive Control:	**FG-A15M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A15M (Xmatrx & NanoVip™)**

S100B protein is part of the S100 family of proteins. S100B is a calcium binding peptide that has 2 EF-hand calcium-binding motifs. S100 proteins are localized in the cytoplasm and/or nucleus of a wide range of cells, and involved in the regulation of a number of cellular processes such as cell cycle progression and differentiation. S100B has been implicated in having many functions including neurite expansion, proliferation of melanoma cells, inhibition of protein kinase cmediated phosphorylation, astrocytosis, axonal proliferation, inhibition of microtubule assembly and stimulation of Calcium ion fluxes.

SATB2



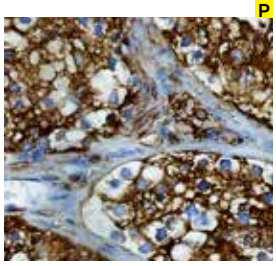
Colon tissue stained with Anti-MCM3 using DAB chromogen

Clone:	rSATB2/6929
Isotype:	IgG1, kappa
Source:	Mouse
Immunogen:	Human SATB2
Specificity:	SATB2
Localization:	Nucleus
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD25-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD25-10M**
Xmatrx®	**AXD25-YCD, AXD25-50D**
NanoVip™®	**AXD25-4M**
Concentrated:	**MUD25-UC, MUD25-5UC**
Recommended Positive Control:	**FG-D25M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D25M (Xmatrx & NanoVip™)**

SATB2 (Special AT-rich binding protein 2) is a nuclear matrix protein that functions as a nuclear matrix-associated transcription factor. It binds to nuclear matrix attachment regions (MARS); displays functional versatility in central nervous development, especially corpus callosum and pons formation, skeletal development, osteoblast differentiation, carcinoma development and prognosis, as well as in immune regulation. SATB2 is highly expressed in adult brain, colorectal adenocarcinomas, moderately expressed in fetal brain, and weakly expressed in adult liver, kidney, and spinal cord.

SFTPD



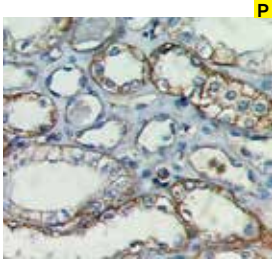
Bladder tissue stained with Anti-SFTPD using DAB chromogen

Clone:	SFTPD/7084R
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human SFTPD
Specificity:	SFTPD
Localization:	Extracellular
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AND05-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AND05-10M**
Xmatrx®	**AYD05-YCD, AYD05-50D**
NanoVip™®	**AYD05-4M**
Concentrated:	**NUD05-UC, NUD05-5UC**
Recommended Positive Control:	**FG-D05N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D05N (Xmatrx & NanoVip™)**

SFTPD (Surfactant pulmonary-associated protein D) is a protein that belongs to group III of the collectin family of C-type lectins. It is synthesized in many tissues including respiratory epithelial cells, alveolar type II cells and nonciliated bronchiolar cells in the lung. SFTPD is considered as humoral molecules of the innate immune system and is upregulated in a variety of inflammatory and infectious conditions. It is also involved in the development of acute and chronic inflammation of the lung by maintaining surfactant homeostasis by regulating the structure of surfactant phospholipids

SLUG



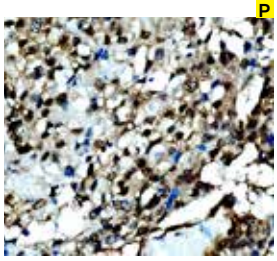
Breast tissue stained with Anti-SLUG using DAB chromogen

Clone:	A-7
Isotype:	IgG1, Kappa
Source:	Mouse
Immunogen:	Human SLUG
Specificity:	SLUG
Localization:	Nuclear
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD59-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD59-10M**
Xmatrx®	**AXD59-YCD, AXD59-50D**
NanoVip™®	**AXD59-4M**
Concentrated:	**MUD59-UC, MUD59-5UC**
Recommended Positive Control:	**FG-D59M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D59M (Xmatrx & NanoVip™)**

Slug, a 29 kDa transcriptional repressor belonging to the Snail family, exhibits induced expression in response to FGF, BMP, and TGF-β. Functioning as a negative regulator of gene expression, it binds to E-cadherin and integrin promoters, suppressing transcription and influencing cell adhesion and the embryonic epithelial-mesenchymal transition, a mechanism exploited by invasive carcinoma cells. Additionally, Slug protects damaged cells from apoptosis by suppressing of the proapoptotic Puma protein via histone deacetylase-1. Controlling the activity of multiple genes like TP53, BRCA2, PUM, and CDH1, Slug plays a crucial role in neural crest development. In breast, esophageal, and colorectal carcinomas, Slug's presence often signifies a poor prognosis for survival

SMAD4



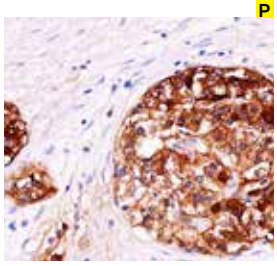
Bladder tissue stained with Anti-SFTPD using DAB chromogen

Clone:	rSMAD4/6310
Isotype:	IgG1, kappa
Source:	Mouse
Immunogen:	Human SMAD4
Specificity:	SMAD4
Localization:	Nuc & Cyt
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD23-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD23-10M**
Xmatrx®	**AXD23-YCD, AXD23-50D**
NanoVip™®	**AXD23-4M**
Concentrated:	**MUD23-UC, MUD23-5UC**
Recommended Positive Control:	**FG-D23M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D23M (Xmatrx & NanoVip™)**

SMAD4, also designated as DPC4 or SMAD family member n°4, is a DNA-binding protein that belongs to the SMAD family of transcription factors. It also defined as a signal transducer and forms complexes with other members of the SMAD family. Activated SMAD4 complexes accumulate in the nucleus and serves as a mediator between extracellular growth factors from the TGFβ family and genes inside the cell nucleus. It is implicated as downstream effectors of TGFβ/BMP signalling which negatively regulates growth of epithelial cells and the extracellular matrix (ECM). SMAD4 expression is found in skin, Pancreatic, colon, uterus and epithelial cells. Mutations in SMAD4 have been found in multiple carcinomas including cholangiocarcinoma, colorectal, head and neck, and pancreatic carcinoma

Somatostatin



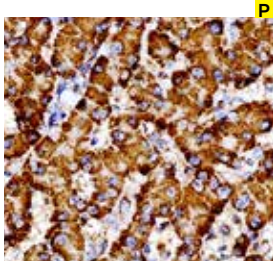
Stomach tissue stained with Anti-Somatostatin using DAB chromogen

Clone:	G-10
Isotype:	IgG2b, kappa
Source:	Mouse
Immunogen:	Human Somatostatin
Specificity:	Somatostatin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD11-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD11-10M**
Xmatrx®	**AXD11-YCD, AXD11-50D**
NanoVip™®	**AXD11-4M**
Concentrated:	**MUD11-UC, MUD11-5UC**
Recommended Positive Control:	**FG-D11M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D11M (Xmatrx & NanoVip™)**

Somatostatin also designated as SST or SMST or growth hormone inhibiting hormone (GHIH) or somatotropin release-inhibiting factor (SRIF), is a 116 amino acid (aa) peptide hormone that is expressed throughout the body. It has both regulatory and inhibitory function. Somatostatin plays an important role in regulating the endocrine system, affecting neurotransmission and inhibiting cell proliferation. It binds to high-affinity G-protein-coupled somatostatin receptors and inhibits the release of numerous secondary hormones. Somatostatin is secreted by the cells of hypothalamus, sympathetic nerves, mucosal cells, myenteric nerves of the gastrointestinal tract, delta cells of the pancreas, salivary glands and by some parafollicular cells of the thyroid.

SDHB



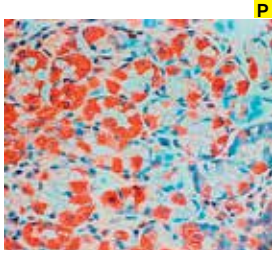
Liver tissue stained with Anti-SDHB using DAB Chromogen

Clone:	SDHB/2382
Isotype:	IgG2b, Kappa
Source:	Mouse
Immunogen:	Human SDHB
Specificity:	SDHB
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA99-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA99-10M**
Xmatrx®	**AXA99-YCD, AXA99-50D**
NanoVip™®	**AXA99-4M**
Concentrated:	**MUA99-UC, MUA99-5UC**
Recommended Positive Control:	**FG-A99M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A99M (Xmatrx & NanoVip™)**

Succinate Dehydrogenase Complex, Subunit B (SDHB), also known as iron-sulfur subunit of complex II (Ip) or SDH2, is a protein encoded by the SDHB gene which belongs to the Succinate Dehydrogenase/fumarate reductase iron-sulfur protein family. It is one of four protein subunits forming Succinate Dehydrogenase, the other three being SDHA, SDHC and SDHD. Succinate Dehydrogenase (SDH) catalyzes the oxidation of Succinate and ubiquinone to fumarate and ubiquinol in aerobic respiration reactions. Mutations in SDH gene have been linked to pheochromocytoma (PCC), paraganglioma (PGL), gastrointestinal stromal tumor (GIST),nrenal cell carcinoma, and ovarian carcinoma.

Secretin



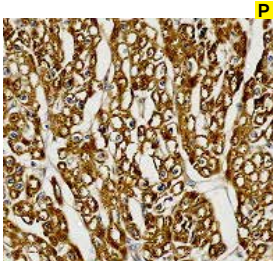
Stomach tissue stained with Anti-Secretin stained with AEC chromogen

Clone:	Polyclonal
Source:	Rabbit
Immunogen:	Synthetic porcine secretin coupled to keyhole limpet hemocyanin with carbodiimide; conjugate emulsified in Freund's complete adjuvant prior to injection
Specificity:	Secretin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR067-5R**
Ready-to-Use (Automated):	
***i*6000™**	**AR067-10R**
Xmatrx®	**AW067-YCD, AW067-50D**
NanoVip™®	**AW067-4M**
Recommended Positive Control:	**FG-067P (Manual & i6000)**
Recommended Microchamber Slide:	**FB-067P (Xmatrx & NanoVip™)**

This hormone, a polypeptide of 27 amino acids, which acts to stimulate pancreatic bicarbonate, is localized primarily in the gastrointestinal tract. It is released from secretin cells (S-cells) which have been localized within the antropyloric, duodenal, jejunal and ileal mucosa of human tissue. Hypersecretinemia has been observed in duodenal ulcers, Zollinger-Ellison syndrome, and chronic renal failure. This antibody stains Secretin in cellular elements in the epithelium of the gastrointestinal tract.

SDHB



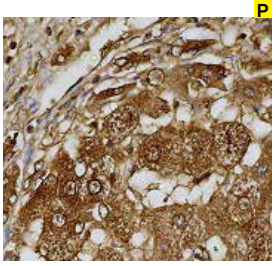
Heart tissue stained with Anti-SDHB using DAB Chromogen

Clone:	SDHB/6697R
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human SDHB
Specificity:	SDHB
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ANB86-5M**
Ready-to-Use (Automated):	
***i*6000™**	**ANB86-10M**
Xmatrx®	**AYB86-YCD, AYB86-50D**
NanoVip™®	**AYB86-4M**
Concentrated:	**NUB86-UC, NUB86-5UC**
Recommended Positive Control:	**FG-B86N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B86N (Xmatrx & NanoVip™)**

Succinate Dehydrogenase Complex, Subunit B (SDHB), also known as iron-sulfur subunit of complex II (Ip) or SDH2, is aprotein encoded by the SDHB gene which belongs to the Succinate Dehydrogenase/fumarate reductase iron-sulfur protein family. It is one of four protein subunits forming Succinate Dehydrogenase, the other three being SDHA, SDHC and SDHD. Succinate Dehydrogenase (SDH) catalyzes the oxidation of Succinate and ubiquinone to fumarate and ubiquinol in aerobic respiration reactions. Mutations in SDH gene have been linked to pheochromocytoma (PCC), paraganglioma (PGL), gastrointestinal stromal tumor (GIST), renal cell carcinoma, and ovarian carcinoma.

Serum Amyloid A



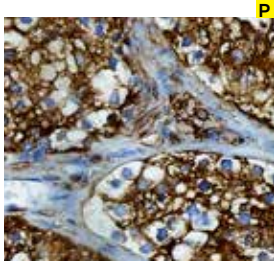
Liver tissue stained with Anti-Serum Amyloid A using DAB Chromogen

Clone:	SAA/326
Isotype:	IgG2a
Source:	Mouse
Immunogen:	Human Serum Amyloid A
Specificity:	Serum Amyloid A
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC42-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC42-10M**
Xmatrx®	**AXC42-YCD, AXC42-50D**
NanoVip™®	**AXC42-4M**
Concentrated:	**MUC42-UC, MUC42-5UC**
Recommended Positive Control:	**FG-C42M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C42M (Xmatrx & NanoVip™)**

SAA proteins plays a major role in physiological processes, including the recruitment of immune cells to inflammatory sites, the transport of cholesterol to the liver for secretion into the bile and the induction of enzymes that degrade extracellular matrix. They have binding sites for high density lipoproteins, laminin, calcium and heparin/heparan-sulfate and are implicated in several chronic inflammatory diseases, such as amyloidosis, thrombosis, atherosclerosis, rheumatoid arthritis and neoplasia. It is expressed in the normal liver, adipose tissue, breast, salivary gland, brain, and can be used as panel with ? and ? Ig light chains, TransthTransthyretin in recognizing most forms of amyloid.

SFTPD



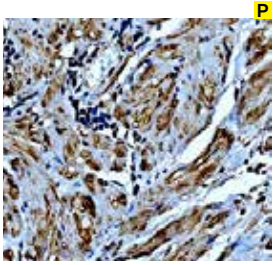
Bladder tissue stained with Anti-SFTPD using DAB Chromogen

Clone:	SFTPD/7084R
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human SFTPD
Specificity:	SFTPD
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AND05-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AND05-10M**
Xmatrx®	**AYD05-YCD, AYD05-50D**
NanoVip™®	**AYD05-4M**
Concentrated:	**NUD05-UC, NUD05-5UC**
Recommended Positive Control:	**FG-D05N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D05N (Xmatrx & NanoVip™)**

SFTPD (Surfactant pulmonary-associated protein D) is a protein that belongs to group III of the collectin family of C-type lectins. It is synthesized in many tissues including respiratory epithelial cells, alveolar type II cells and nonciliated bronchiolar cells in the lung. SFTPD is considered as humoral molecules of the innate immune system and is upregulated in a variety of inflammatory and infectious conditions.

Smoothelin



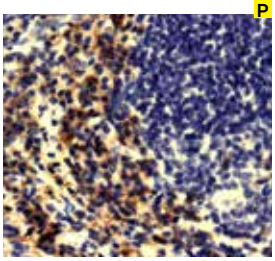
Prostate tissue stained with Anti-Smoothelin using DAB Chromogen

Clone:	C-8
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Human Smoothelin
Specificity:	Smoothelin
Localization:	Mem & Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB40-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB40-10M**
Xmatrx®	**AXB40-YCD, AXB40-50D**
NanoVip™®	**AXB40-4M**
Concentrated:	**MUB40-UC, MUB40-5UC**
Recommended Positive Control:	**FG-B40M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B40M (Xmatrx & NanoVip™)**

Smoothelin is a constituent of the smooth muscle cell cytoskeleton protein exclusively found in differentiated smooth muscle cells (SMC). Smoothelin associates with actin stress fibers but does not interact with desmin. A short and long isoforms of smoothelin are produced by alternative splicing. The short isoform is expressed in visceral muscle tissue, including intestine and stomach, but not in brain, while the long isoform is expressed in all vascularized organs. In the vascular system, smoothelin expression is limited to large veins and arteries capable of pulsatile contraction.

SLAMF7



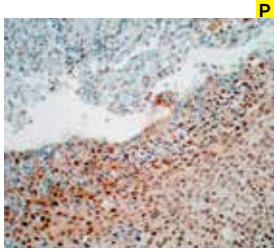
Tonsil tissue stained with Anti-SLAMF7 using DAB chromogen

Clone:	Polyclonal
Isotype:	IgG
Source:	Rabbit
Immunogen:	SLAM family member 7
Specificity:	Human SLAMF7
Localization:	Cell Membrane
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR920-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AR920-10RE**
Xmatrx®	**AW920-YCDE, AW920-50DE**
NanoVip™®	**AW920-4ME**
Concentrated:	**PU920-UPE, PU920-5UPE**
Recommended Positive Control:	**FG-920PE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-920PE (Xmatrx & NanoVip™)**

SLAMF7 (Signaling lymphocytic activation molecule F7) also known as CS1 (CD2 subset 1), CRACC (CD2-like receptor-activating cytotoxic cell) and CD319, is a type I transmembrane protein and a member of the SLAM receptors family. SLAM receptors modulate the activation and differentiation of a wide variety of immune cells and thus are involved in the regulation and interconnection of both innate and adaptive immune response. SLAMF7 is abundantly present in most cases of multiple myeloma (MM), a nearly universally fatal malignancy of plasma cells. Targeting SLAMF7 with Elotuzumab, a humanized mAb against SLAMF7 is approved for the treatment of relapsed MM.

SOX2



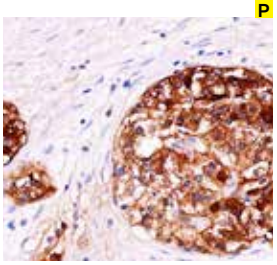
Uterus carvex tissue stained with Anti-SOX2 using DAB chromogen

Clone:	Polyclonal
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to SOX2 that is not observed in cystolic extracts
Specificity:	Human SOX2
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR788-5R**
Ready-to-Use (Automated):	
***i*6000™**	**AR788-10R**
Xmatrx®	**AW788-YCD, AW788-50D**
NanoVip™®	**AW788-4M**
Concentrated:	**PU788-UP, PU788-5UP**
Recommended Positive Control:	**FG-788P (Manual & i6000)**
Recommended Microchamber Slide:	**FB-788P (Xmatrx & NanoVip™)**

SOX 2 is also known as SRY related HMG BOX gene 2. All SOX proteins have a single HMG box and bind linear DNA in a sequence specific manner, resulting in the bending of DNA through large angles. Bending causes the DNA helix to open for some distance, which may affect binding and interactions of other transcription factors. SOX1, SOX2 and SOX3 show the closest homology to SRY. They share maximum homology within the HMG domain and are expressed mainly in the developing nervous system of the mouse. These genes share significant homology outside the HMG box also and are highly conserved throughout their evolution.

Somatostatin



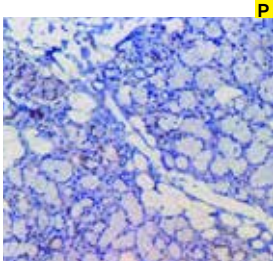
Stomach tissue stained with Anti-Somatostatin using DAB Chromogen

Clone:	G-10
Isotype:	IgG2b, kappa
Source:	Mouse
Immunogen:	Human Somatostatin
Specificity:	Somatostatin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD11-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD11-10M**
Xmatrx®	**AXD11-YCD, AXD11-50D**
NanoVip™®	**AXD11-4M**
Concentrated:	**MUD11-UC, MUD11-5UC**
Recommended Positive Control:	**FG-D11M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D11M (Xmatrx & NanoVip™)**

Somatostatin also designated as SST or SMST or growth hormone inhibiting hormone (GHIH) or somatotropin releaseinhibiting factor (SRIF), is a 116 amino acid (aa) peptide hormone that is expressed throughout the body. It has both regulatory and inhibitory function. Somatostatin plays an important role in regulating the endocrine system, affecting neurotransmission and inhibiting cell proliferation. It binds to high-affinity G-protein-coupled somatostatin receptors and inhibits the release of numerous secondary hormones. Somatostatin is secreted by the cells of hypothalamus, sympathetic nerves, mucosal cells, myenteric nerves of the gastrointestinal tract, delta cells of the pancreas, salivary glands and by some parafollicular cells of the thyroid.

SOX10



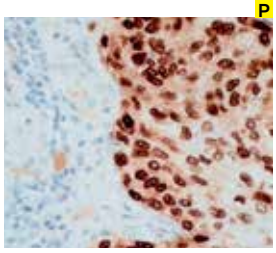
Salivary gland tissue stained with Anti-SOX10 using DAB Chromogen

Clone:	SOX10/991
Isotype:	IgG2b, kappa
Source:	Mouse
Immunogen:	Human SOX10
Specificity:	SOX10
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM995-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM995-10M**
Xmatrx®	**AX995-YCD, AX995-50D**
NanoVip™®	**AX995-4M**
Concentrated:	**MU995-UC, MU995-5UC**
Recommended Positive Control:	**FG-995M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-995M (Xmatrx & NanoVip™)**

The SOX10 protein belongs to the SOX genes family of transcription factors that bind to the minor groove in DNA. They are characterized by a homologous sequence called the HMG-box. SOX10 is known to be involved in regulation of embryonic development and determination of cell fate. It combines with other proteins to form complexes and acts as a transcriptional activator. It is very important for neural crest and peripheral nervous system development. SOX10 plays an important role in melanocytic cell differentiation. It can be used as a sensitive marker for melanoma.

SOX2



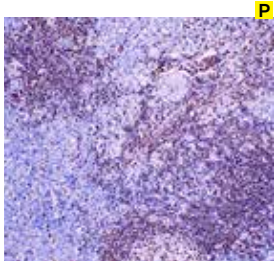
Squamous tissue stained with Anti-SOX2 using DAB chromogen

Clone:	EP103
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues in human SOX2 protein
Specificity:	Human SOX2
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN833-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN833-10M**
Xmatrx®	**AY833-YCD, AY833-50D**
NanoVip™®	**AY833-4M**
Concentrated:	**NU833-UC, NU833-5UC**
Recommended Positive Control:	**FG-833N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-833N (Xmatrx & NanoVip™)**

SOX2 is a member of the SRY-related HMG-box (SOX) family of transcription factors involved in the regulation of embryonic development and in the determination of cell fate. It is required for stem cell maintenance in the central nervous system, and it also regulates gene expression in the stomach. SOX2 is necessary for regulating multiple transcription factors that affect Oct3/4 expression. An essential function of SOX2 is to stabilize embryonic stem cells in a pluripotent state by maintaining the requisite level of Oct3/4 expression.

SOX11



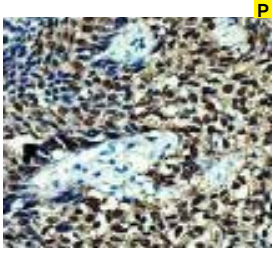
Salivary gland tissue stained with Anti-SOX11 using DAB Chromogen

Clone:	SOX11/7236
Isotype:	IgG1, kappa
Source:	Mouse
Immunogen:	Human SOX11
Specificity:	SOX11
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD15-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD15-10M**
Xmatrx®	**AXD15-YCD, AXD15-50D**
NanoVip™®	**AXD15-4M**
Concentrated:	**MUD15-UC, MUD15-5UC**
Recommended Positive Control:	**FG-D15M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D15M (Xmatrx & NanoVip™)**

Sox-11 is a neural transcription factor that belongs to group C SOX (SRY-related HMG-box) transcription factor family. It is involved in the embryonic neurogenesis and plays a role in epithelial-mesenchymal interactions, tissue modelling during development, neuronal cell proliferation, and survival. SOX-11 is also involved in tumorogenesis and adult neurogenesis. Its expression is prominent in the periventricular cells of the developing central nervous system, Mantle cell lymphoma, and in subsets of hairy cell leukaemia, B cell lymphoblastic leukaemia, Burkitt lymphomas, but is not expressed in other B cell lymphomas or in normal B lymphocytes. Sox11 is also expressed in malignant gliomas and epithelial ovarian carcinoma.

SOX2



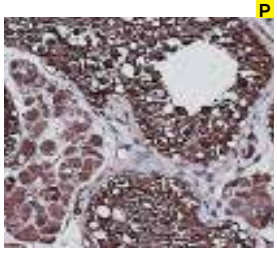
Lung squamous carcinoma tissue stained with Anti-SOX2 using DAB chromogen

Clone:	SOX2/1791
Isotype:	IgG2b, kappa
Source:	Mouse
Immunogen:	Recombinant fragment of human SOX2protein
Specificity:	SOX2
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA24-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA24-10M**
Xmatrx®	**AXA24-YCD, AXA24-50D**
NanoVip™®	**AXA24-4M**
Concentrated:	**MUA24-UC, MUA24-5UC**
Recommended Positive Control:	**FG-A24M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A24M (Xmatrx & NanoVip™)**

SOX2 is a member of the SRY-related HMG-box (SOX) family of transcription factors involved in the regulation of embryonic development and in the determination of cell fate. It is required for stem cell maintenance in the central nervous system, and it also regulates gene expression in the stomach. SOX2 is necessary for regulating multiple transcription factors that affect Oct3/4 expression. An essential function of SOX2 is to stabilize embryonic stem cells in a pluripotent state by maintaining the requisite level of Oct3/4 expression

SPARC / Osteonectin



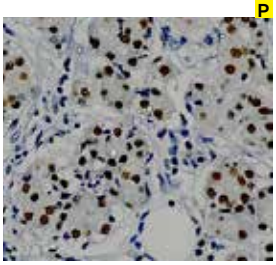
Testis tissue stained with Anti-SPARC using DAB chromogen

Clone:	ON1-1
Isotype:	IgG1
Source:	Mouse
Immunogen:	Bovine bone osteonectin (SPARC)
Specificity:	SPARC / Osteonectin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA28-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA28-10M**
Xmatrx®	**AXA28-YCD, AXA28-50D**
NanoVip™®	**AXA28-4M**
Concentrated:	**MUA28-UC, MUA28-5UC**
Recommended Positive Control:	**FG-A28M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A28M (Xmatrx & NanoVip™)**

SPARC (Osteonectin) is secreted by osteoblasts during bone formation. It is a 40kD acidic and cysteine-rich glycoprotein consisting of a single polypeptide chain. It is a glycoprotein in the bone that binds calcium and also involved in extracellular matrix synthesis and promotion of changes to cell shape. An interrelationship between osteonectin over-expression and ampullary carcinomas and chronic pancreatitis has been found. The gene product has been correlated with tumor suppression but has also been associated with metastasis based on cell shape changes which can promote tumor cell invasion. Three transcript variants encoding different isoforms have been known for this gene.

SOX9



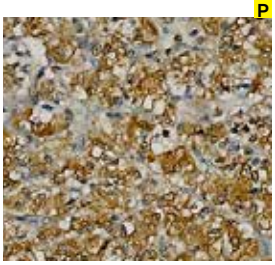
Salivary gland tissue stained with Anti-SOX9 using DAB Chromogen

Clone:	SOX9/2387
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human SOX9
Specificity:	SOX9
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB90-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB90-10M**
Xmatrx®	**AXB90-YCD, AXB90-50D**
NanoVip™®	**AXB90-4M**
Concentrated:	**MUB90-UC, MUB90-5UC**
Recommended Positive Control:	**FG-B90M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B90M (Xmatrx & NanoVip™)**

SOX9 is a member of SOX (SRY-like HMG box) family of transcription factors with diverse roles in development. SOX9 involved in chondrogenesis and regulates the expression of other genes involved in chondrogenesis by acting as a transcription factor for these genes. In addition, it is reportedly involved in the maintenance of adult stem cell populations, including multipotent neural stem cells, hair follicle stem cells, and mammary stem cells. It plays an important role in sex determination and differentiation of Sertoli cells. The expression of sox9 is seen in the central nervous system, neural crest, intestine, salivary gland, and testis. Sox9 expression has been reported in several other tumor types including ovarian, prostate, and pancreatic malignancies.

SPEC1



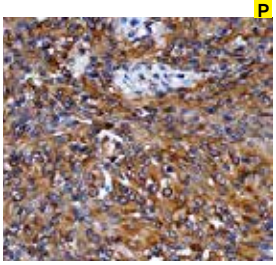
Renal cell carcinoma stained with Anti-SPEC1 using DAB Chromogen

Clone:	RBC2/3D5
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Human SPEC1
Specificity:	SPEC1
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB62-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB62-10M**
Xmatrx®	**AXB62-YCD, AXB62-50D**
NanoVip™®	**AXB62-4M**
Concentrated:	**MUB62-UC, MUB62-5UC**
Recommended Positive Control:	**FG-B62M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B62M (Xmatrx & NanoVip™)**

Spectrin is an actin binding protein and a major constituent of cytoskeletal superstructure of the erythrocyte plasma membrane. Erythrocyte Spectrin is a heterodimer made up of alpha-beta dimers linked in a head-to-head arrangement. Spectrin in other tissues may be composed of distinct but homologous alpha and beta subunits, sometimes referred to as Fodrin. It functions in the determination of cell shape, arrangement of transmembrane proteins, and organization of organelles. It also functions as membrane organizers and stabilizers, composed of non-homologous are present in other somatic cells.

SSTR2



Brain tissue stained with Anti-SSTR2 using DAB Chromogen

Clone:	A-8
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human SSTR2
Specificity:	SSTR2
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC38-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC38-10M**
Xmatrx®	**AXC38-YCD, AXC38-50D**
NanoVip™®	**AXC38-4M**
Concentrated:	**MUC38-UC, MUC38-5UC**
Recommended Positive Control:	**FG-C38M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C38M (Xmatrx & NanoVip™)**

SSTR2 give rise to two isoforms, SSTR2a and SSTR2b which are expressed in brain, stomach, intestinal epithelia, pancreatic islets and kidney tubules. SST coupled with its receptor subtypes also prevent angiogenesis and have anti-proliferative effects on healthy and carcinomaous cells.SSTR2 expression was found on wide variety of tumors such as medulloblastoma, neuroblastomas, meningiomas, breast carcinomas and small cell lung carcinomas.

STAT5 alpha

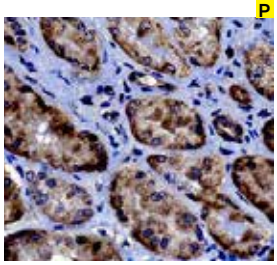
Breast carcinoma stained with Anti-STAT5 alpha using DAB Chromogen

Clone:	6D4
Isotype:	IgG1
Source:	Mouse
Immunogen:	Recombinant fragment of human STAT5α expressed in E. coli
Specificity:	STAT5 alpha
Localization:	Nucleus / cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM972-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM972-10M**
Xmatrx®	**AX972-YCD, AX972-50D**
NanoVip™®	**AX972-4M**
Concentrated:	**MU972-UC, MU972-5UC**
Recommended Positive Control:	**FG-972M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-972M (Xmatrx & NanoVip™)**

STAT5 alpha is a member of the STAT family of transcription factors. In response to cytokines and growth factors, STAT family members are phosphorylated by the receptor associated kinases and then form homo- or heterodimers that translocate to the cell nucleus where they act as transcription activators. This protein mediates the responses of many cell ligands. Activation of STAT5 alpha in myeloma and lymphoma associated with a TEL/JAK2 gene fusion is independent of cell stimulus and has been shown to be essential for the tumorigenesis.

STAT-3



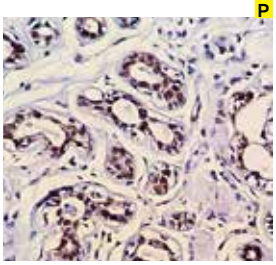
Kidney tissue stained with Anti-STAT-3 using DAB Chromogen

Clone:	STAT3/2409
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Human STAT-3
Specificity:	STAT-3
Localization:	Nuc & Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA87-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA87-10M**
Xmatrx®	**AXA87-YCD, AXA87-50D**
NanoVip™®	**AXA87-4M**
Concentrated:	**MUA87-UC, MUA87-5UC**
Recommended Positive Control:	**FG-A87M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A87M (Xmatrx & NanoVip™)**

Signal transducer and activator of transcription 3 (STAT3) (acute-phase response factor) is a member of the STAT protein family. Activation of STAT3 is through phosphorylation in response to various cytokines and growth factors including IFNs, EGF, IL5, IL6, HGF, LIF and BMP2. It mediates the expression of a variety of genes in response to cell stimuli and possesses oncogenic potential and carries anti-apoptotic activities. Thus, STAT3 plays a key role in many cellular processes such as cell growth, apoptosis and murine fetal development. Stat3 may localize to the nucleus or the cytoplasm and activated STAT3 is reported in a number of human carcinomas.

STAT5A



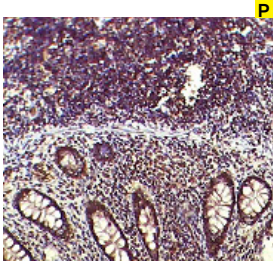
Breast carcinoma stained with Anti-STAT5A using DAB Chromogen

Clone:	C-6
Isotype:	IgM
Source:	Mouse
Immunogen:	Human STAT5A
Specificity:	STAT5A
Localization:	Nuc & Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC36-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC36-10M**
Xmatrx®	**AXC36-YCD, AXC36-50D**
NanoVip™®	**AXC36-4M**
Concentrated:	**MUC36-UC, MUC36-5UC**
Recommended Positive Control:	**FG-C36M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C36M (Xmatrx & NanoVip™)**

STAT5a proteins play a critical role in a variety of physiological functions, including reproduction, lactation, somatic growth and immune function. STAT5a and STAT5b are encoded by separate genes and share 93% amino acid identity and their signaling pathway is involved in the transition of organ-confined prostate carcinoma to hormone-refractory disease.

STAT-6



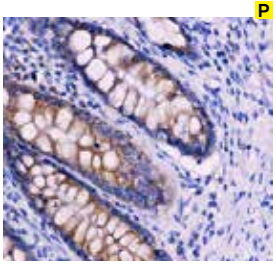
Appendix tissue stained with Anti-STAT-6 using DAB Chromogen

Clone:	EP325
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human STAT-6
Specificity:	STAT-6
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ANB83-5M**
Ready-to-Use (Automated):	
***i*6000™**	**ANB83-10M**
Xmatrx®	**AYB83-YCD, AYB83-50D**
NanoVip™®	**AYB83-4M**
Concentrated:	**NUB83-UC, NUB83-5UC**
Recommended Positive Control:	**FG-B83N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B83N (Xmatrx & NanoVip™)**

Signal transducers and activators of transcription 6 (STAT6) is a member of the Janus family tyrosine kinases (Jak)/ STAT signal transduction pathway and mediates cytokine signaling by IL 4 and IL-13. In response to cytokines and growth factors, STAT family members are phosphorylated by the receptor associated kinases forming homo- or heterodimers that translocate to the cell nucleus where they act as transcription activators. It is critically involved in Th2 immune response. STAT6 mRNA has been detected in peripheral blood lymphocytes, colon, intestine, ovary, prostate, thymus, appendix, kidney, liver, lung and placenta.

STAT6



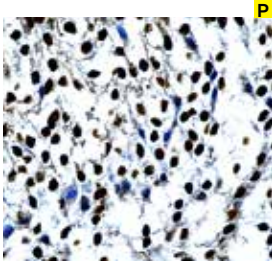
Appendix tissue stained with Anti-STAT6 using DAB Chromogen

Clone:	D-1
Isotype:	IgG2b
Source:	Mouse
Immunogen:	Human STAT6
Specificity:	STAT6
Localization:	Cyt & Nuc
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB34-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB34-10M**
Xmatrx®	**AXB34-YCD, AXB34-50D**
NanoVip™®	**AXB34-4M**
Concentrated:	**MUB34-UC, MUB34-5UC**
Recommended Positive Control:	**FG-B34M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B34M (Xmatrx & NanoVip™)**

Signal transducers and activators of transcription 6 (STAT6) is a member of the Janus family tyrosine kinases (Jak)/ STAT signal transduction pathway and mediates cytokine signaling by IL 4 and IL-13. In response to cytokines and growth factors, STAT family members are phosphorylated by the receptor associated kinases, and then form homo- or heterodimers that translocate to the cell nucleus where they act as transcription activators. Phosphorylation at Tyr641 activates STAT6 which is required for responsiveness to IL-4 and IL-13. It is critically involved in Th2 immune response. STAT6 mRNA has been detected in peripheral blood lymphocytes, colon, intestine, ovary, prostate, thymus, appendix, kidney, liver, lung and placenta.

Steroidogenic Factor (SF1)



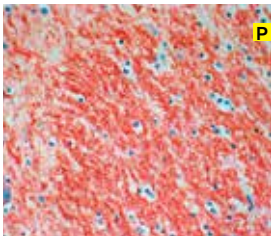
Adrenal cortical carcinoma tissue stained with Anti-STAT-6 using DAB Chromogen

Clone:	NR5A1/3397
Isotype:	IgG2b, kappa
Source:	Mouse
Immunogen:	Human Steroidogenic Factor 1
Specificity:	Steroidogenic Factor 1
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD02-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD02-10M**
Xmatrx®	**AXD02-YCD, AXD02-50D**
NanoVip™®	**AXD02-4M**
Concentrated:	**MUD02-UC, MUD02-5UC**
Recommended Positive Control:	**FG-D02M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D02M (Xmatrx & NanoVip™)**

Steroidogenic Factor 1 (SF-1) also designated Nuclear Receptor Subfamily 5 Group A Member 1 (NR5A1), Adrenal 4 Binding Protein (AD4BP), HSF-1, is a transcription factor belongs the fushi tarazu factor-1 (FTZ-F1) subfamily of orphan nuclear receptors. It regulates multiple genes involved in the organ development and differentiation of the endocrine system. SF-1 plays an important role in fetal development of the hypothalamus, pituitary gland, gonads, and the adrenal gland. Its expression is observed in all steroidogenic tissues, including the adrenal cortex, testicular Sertoli cells, and Leydig cells, ovarian theca/interstitial cells, granulosa cells, hypothalamus, and anterior pituitary.

Substance P



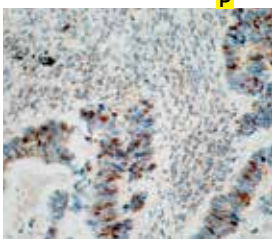
Brain tissue stained with Anti-Substance P using AEC chromogen

Clone:	Polyclonal
Source:	Rabbit
Immunogen:	Synthetic Substance P bound to keyhole limpet hemocyanin (KLH)
Specificity:	Substance P
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR069-5R**
Ready-to-Use (Automated):	
***i*6000™**	**AR069-10R**
Xmatrx®	**AW069-YCD, AW069-50D**
NanoVip™®	**AW069-4M**
Concentrated:	**PU069-UP, PU069-5UP**
Recommended Positive Control:	**FG-069P (Manual & i6000)**
Recommended Microchamber Slide:	**FB-069P (Xmatrx & NanoVip™)**

Substance P is one of several neuroendocrine polypeptides localized in both the nervous system and gastrointestinal tract. Substance P is grouped into a family with bombesin and neurotensin because all three peptides are located in both brain and gut and terminate with a common dipeptide sequence (-Leu-Met-NH 2) at the amino terminal end. Substance P is found in most mid-gut and about half of fore-gut and hind-gut intestinal carcinoids. This antibody cross-reacts with other species including chicken and opossum. This antibody stains Substance P in nerve fibers.

Survivin



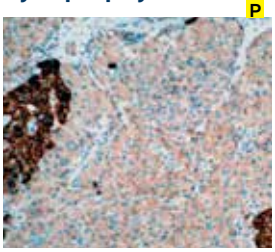
Colon carcinoma tissue stained with Anti-Survivin using DAB chromogen

Clone:	EP119
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues on the N-terminus of human Survivin protein
Specificity:	Human Survivin
Localization:	Nucleus/Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN826-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN826-10M**
Xmatrx®	**AY826-YCD, AY826-50D**
NanoVip™®	**AY826-4M**
Concentrated:	**NU826-UC, NU826-5UC**
Recommended Positive Control:	**FG-826N (Manual & i6000)**
Recommended Microchamber Slide:	**FG-826N (Xmatrx & NanoVip™)**

Survivin belongs to inhibitor of apoptosis (IAP) protein family and it interferes with activation of caspases, other post-mitochondrial events. Survivin is expressed in most tumors, it regulates the cell cycle, but it is undetectable in heavily differentiated normal cells and tissues. Survivin expression occurs during G2/M phase of the cell cycle. During the intial stages of mitosis, survivin ineracts with microtubules of the mitotic spindle apparatus and that is heavily regulated by microtubule dynamics.

Synaptophysin



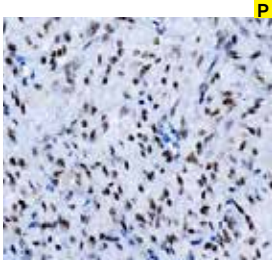
Pancreas stained with Anti-Synaptophysin using DAB chromogen

Clone:	EP158
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to residues on the C-terminus (cytoplasmic domain) of human Synaptophysin protein
Specificity:	Human Synaptophysin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN857-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN857-10M**
Xmatrx®	**AY857-YCD, AY857-50D**
NanoVip™®	**AY857-4M**
Concentrated:	**NU857-UC, NU857-5UC**
Recommended Positive Control:	**FG-857N (Manual & i6000)**
Recommended Microchamber Slide:	**FG-857N (Xmatrx & NanoVip™)**

Synaptophysin is a major integral transmembrane glycoprotein of synaptic vesicles with four transmembrane domains. This protein is present in almost all neurons and neuroendocrine cells throughout the body. An antibody to Synaptophysin is useful for the identification of tumors with neural and neuroendocrine differentiation.

SV40 T Ag



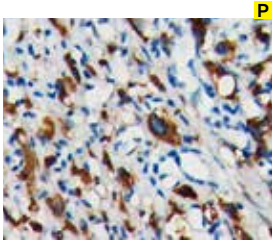
Colon tissue stained with Anti-SV40 T Ag using DAB Chromogen

Clone:	Pab 101
Isotype:	IgG2a
Source:	Mouse
Immunogen:	Human SV40 T Ag
Specificity:	SV40 T Ag
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB74-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB74-10M**
Xmatrx®	**AXB74-YCD, AXB74-50D**
NanoVip™®	**AXB74-4M**
Concentrated:	**MUB74-UC, MUB74-5UC**
Recommended Positive Control:	**FG-B74M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B74M (Xmatrx & NanoVip™)**

Simian virus (SV40) T (large and small) antigens are encoded by the early region of the SV40 genome. The large T antigen of SV40 binds DNA, and complexes with a 53KDa cellular protein, p53, which is required for initiation of viral DNA replication during lytic growth. In addition, it also binds DNA polymerase and the transcription factor AP-2 to form a specific complex with the P105 product of the retinoblastoma susceptibility gene. SV40 also forms complexes with a second tumor supressor gene-encoded protein, Rb 105.

Synaptophysin



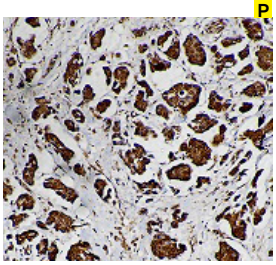
Pancreas tissue stained with Anti-Synaptophysin using DAB Chromogen

Clone:	SYP/3551
Isotype:	IgG1, kappa
Source:	Mouse
Immunogen:	Recombinant fragment (around aa 224-313) of human Synaptophysin (SYP) protein (exact sequence is proprietary)
Specificity:	Synaptophysin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA50-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA50-10M**
Xmatrx®	**AXA50-YCD, AXA50-50D**
NanoVip™®	**AXA50-4M**
Concentrated:	**MUA50-UC, MUA50-5UC**
Recommended Positive Control:	**FG-A50M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A50M (Xmatrx & NanoVip™)**

Synaptophysin, a 38 kD glycoprotein, is the major integral membrane protein of synaptic vesicles. It consists of four transmembrane domains. This protein is present in almost all neurons and neuroendocrine cells throughout the body. This antibody may be useful for the identification of tumors with neural and neuroendocrine differentiation.

TARDBP



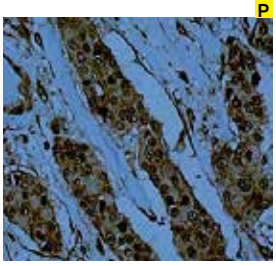
Breast carcinoma tissue stained with Anti-TARDBP using DAB Chromogen

Clone:	E-10
Isotype:	IgG2a
Source:	Mouse
Immunogen:	Human TARDBP
Specificity:	TARDBP
Localization:	Nuc & Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC45-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC45-10M**
Xmatrx®	**AXC45-YCD, AXC45-50D**
NanoVip™®	**AXC45-4M**
Concentrated:	**MUC45-UC, MUC45-5UC**
Recommended Positive Control:	**FG-C45M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C45M (Xmatrx & NanoVip™)**

TARDBP is found in patients with frontotemporal lobar degeneration (FTLD) and amyotrophic lateral sclerosis (ALS). Additionally, TDP43 is involved in RNA splicing of the cystic fibrosis transmembrane conductance regulator gene (CFTR). TARDBP may play a role in the development of neurodegenerative disorders such as Alzheimer's and Parkinson's disease.

YAP



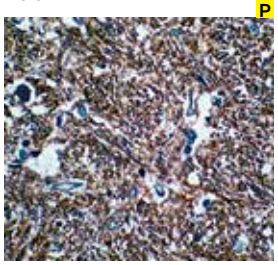
Breast carcinoma tissue stained with Anti-YAP using DAB Chromogen

Clone:	G-6
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human YAP
Specificity:	YAP
Localization:	Cyt & Nuc
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC50-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC50-10M**
Xmatrx®	**AXC50-YCD, AXC50-50D**
NanoVip™®	**AXC50-4M**
Concentrated:	**MUC50-UC, MUC50-5UC**
Recommended Positive Control:	**FG-C50M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C50M (Xmatrx & NanoVip™)**

YAP encodes a nuclear effector of the Hippo signaling pathway which plays a pivotal role in regulating tissue growth and organ size. Deregulation of the Hippo pathway causes tumor formation and malignancy and hence, YAP may function as a potential target for carcinoma treatment. YAP is expressed at high levels in the lung, placenta, prostate, testis and ovary.

Tau



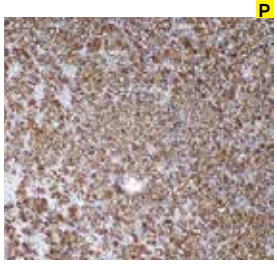
Brain tissue stained with Anti-Tau using DAB chromogen

Clone:	Tau-5
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human Tau
Specificity:	Tau
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM459-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM459-10M**
Xmatrx®	**AX459-YCD, AX459-50D**
NanoVip™®	**AX459-4M**
Concentrated:	**MU459-UC, MU459-5UC**
Recommended Positive Control:	**FG-459M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-459M (Xmatrx & NanoVip™)**

This antibody recognizes proteins of 45-68 kD, identified as tau proteins. The Tau monoclonal antibody reacts with the non-phosphorylated as well as the phosphorylated forms of tau. Tau proteins are members of the microtubule associated proteins (MAPs) that stabilize neuronal microtubules in cell processes, establishment of cell polarity and intracellular transport. Six isoforms, ranging from 352 to 441 amino acids, are generated from a single Tau gene by alternative splicing in the human central nervous system. In Alzheimer's disease, abnormally phosphorylated, tau proteins aggregate into paired helical filaments and loose their ability to maintain the microtubule tracks. Missense Tau mutations in individuals with a type of frontotemporal dementia, FTDP 17, have been discovered.

Tau



Renal cell carcinoma tissue stained with Anti-Tau using DAB Chromogen

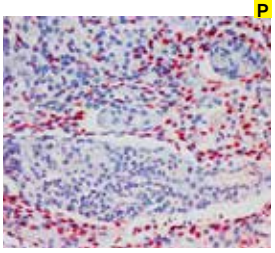
Clone:	BSB-115
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human Tau
Specificity:	Tau
Localization:	Nuc & Cyt
Pre-treatment:	EZ-AR2
Manual/i6000:	HK521-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC28-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC28-10M**
Xmatrx®	**AXC28-YCD, AXC28-50D**
NanoVip™®	**AXC28-4M**
Concentrated:	**MUC28-UC, MUC28-5UC**
Recommended Positive Control:	**FG-C28M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C28M (Xmatrx & NanoVip™)**

Tau proteins are the products of alternative splicing of single gene MAPT (microtubule-associated protein tau) which is found on chromosome 17 in humans. The main function of Tau proteins is to modulate the stability of axonal microtubules. Tau proteins interact with tubulin to stabilize microtubules and also promote tubulin assembly into microtubules. Mutations that alter their function and isoforms lead to hyper-phosphorylation, which in turn disassembles microtubules and hides away normal tau, MAP 1, MAP 2, and ubiquitin into neurofibrillary tangles, which are composed of paired helical filaments (PHF) leading to neurodegenerative diseases and cell death. Tau proteins are expressed abundantly in neurons of the central nervous system but very low levels in astrocytes and oligodendrocytes.

Terminal Deoxynucleotidyl Transferase (TdT)

P



Thymoma tissue stained with Anti-Terminal deoxynucleotidyl Transferase (TdT) using AEC chromogen

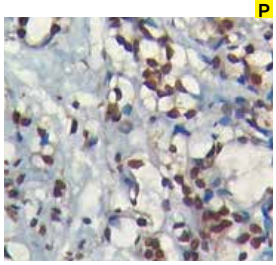
Clone:	EP266
Isotype:	IgG
Source:	Rabbit
Immunogen:	Peptide containing specific sequence for N-terminal of human TdT protein
Specificity:	TdT
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN881-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN881-10M**
Xmatrx®	**AY881-YCD, AY881-50D**
NanoVip™®	**AY881-4M**
Concentrated:	**NU881-UC, NU881-5UC**
Recommended Positive Control:	**FG-881N (Manual & i6000)**
Recommended Microchamber Slide:	**FG-881N (Xmatrx & NanoVip™)**

This antibody identifies a 58 kD peptide normally found in cortical thymocytes and immature bone marrow lymphocytes. TdT expression has been reported to occur in a majority of cases of acute lymphocytic leukemia (ALL) cases. TdT staining is found in all subtypes of ALL with the exception of pre-B-cell ALL. TdT positivity has also been observed in approximately one third of all cases of chronic myeloid leukemia. TdT positive staining is found in ALL, acute myeloid leukemia and chronic myeloid leukemia. This antibody stains predominantly nuclear TdT in normal and neoplastic cells.

Thymidylate Synthase

P



Prostate carcinoma tissue stained with Anti-Thymidylate Synthase using DAB Chromogen

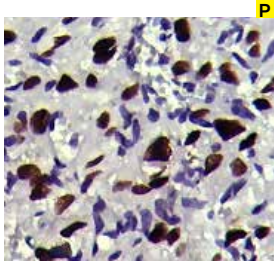
Clone:	TYMS/1884
Isotype:	IgG2c, kappa
Source:	Mouse
Immunogen:	Human Thymidylate Synthase
Specificity:	Thymidylate Synthase
Localization:	Nuc & Cyt
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC15-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC15-10M**
Xmatrx®	**AXC15-YCD, AXC15-50D**
NanoVip™®	**AXC15-4M**
Concentrated:	**MUC15-UC, MUC15-5UC**
Recommended Positive Control:	**FG-C15M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C15M (Xmatrx & NanoVip™)**

Thymidylate Synthase (TS or TYMS) is a 36kDa intracellular enzyme catalyzes deoxyuridine monophosphate (dUMP) to deoxythymidine monophosphate (dTMP) which is essential for DNA biosynthesis or DNA repair. It is also an important target for fluoropyrimidines, an important group of antineoplastic drugs (e.g: 5-fluorouracil (5-FU)) which acts TS inhibitor and are widely used in the treatment of solid tumors such as breast, colon, head and neck.

TFE3

P



Renal cell carcinoma tissue stained with Anti-TFE3 using DAB Chromogen

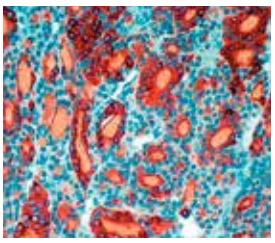
Clone:	EP285
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human TFE3
Specificity:	TFE3
Localization:	Nucleus/Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ANB13-5M**
Ready-to-Use (Automated):	
***i*6000™**	**ANB13-10M**
Xmatrx®	**AYB13-YCD, AYB13-50D**
NanoVip™®	**AYB13-4M**
Concentrated:	**NUB13-UC, NUB13-5UC**
Recommended Positive Control:	**FG-B13N (Manual & i6000)**
Recommended Microchamber Slide:	**FG-B13N (Xmatrx & NanoVip™)**

Transcription factor E3 (TFE3) is a member of a family of basic helix-loop-helix leucine zipper transcription factors that includes MITF, TFEB, TFE3, and TFEC. Transcription factor binding to IGHM enhancer 3 or transcription factor E3 (TFE3) gene is mapped to human chromosome Xp11.23. In the immune system, TFE3 plays important roles in modulating immunoglobulin heavy-chain expression and regulating B-cell activation. Members of this family form heterodimers with each other, bind the same DNA sequences, and undergo the same types of posttranslational modifications; including sumoylation .This gene may be involved in chromosomal translocations that occur in a number of tumors, including sporadic renal cell tumors alveolar soft part sarcoma, perivascular epithelioid cell tumor, and epithelioid hemangioendotheliomas.

Thyroglobulin

P



Follicular adenoma tissue stained with Anti-Thyroglobulin using AEC chromogen

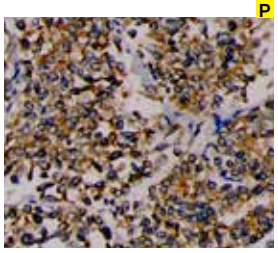
Clone:	2H11
Isotype:	IgG1
Source:	Mouse
Immunogen:	Purified human thyroglobulin
Specificity:	Thyroglobulin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM032-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM032-10M**
Xmatrx®	**AX032-YCD, AX032-50D**
NanoVip™®	**AX032-4M**
Concentrated:	**MU032-UC, MU032-5UC**
Recommended Positive Control:	**FG-032M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-032M (Xmatrx & NanoVip™)**

Thyroglobulin is a 19S glycoprotein with a molecular mass of approximately 650 kD. It constitutes 85-100% of the total of all thyroid iodoproteins. Immunohistochemical studies of thyroid carcinomas have revealed that a high portion of differentiated thyroid carcinomas synthesize thyroglobulin. Positive thyroglobulin staining indicates thyroidal origin of the tumor. Immunohistochemical and electron microscopic findings have disclosed a wide range of cellular differentiation in thyroid adenomas.

Thyroid Peroxidase

P



Thyroid carcinoma tissue stained with Anti-Thyroid peroxidase using DAB Chromogen

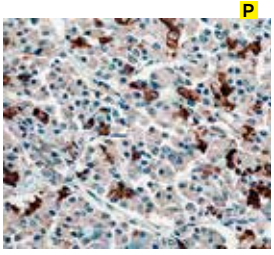
Clone:	TPO/3694
Isotype:	IgG1, kappa
Source:	Mouse
Immunogen:	Recombinant fragment of human TPO
Specificity:	Thyroid Peroxidase
Localization:	Cytoplasm/Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA54-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA54-10M**
Xmatrx®	**AXA54-YCD, AXA54-50D**
NanoVip™®	**AXA54-4M**
Concentrated:	**MUA54-UC, MUA54-5UC**
Recommended Positive Control:	**FG-A54M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A54M (Xmatrx & NanoVip™)**

Thyroid peroxidase (TPO) antibodies are a marker for the presence of autoimmune thyroid disease. The main function of TPO is to detect the level of iodination of tyrosine residues in thyroglobulin and phenoxy-ester formation between pairs of iodinated tyrosines to generate the thyroid hormones, thyroxine and tri-iodothyronine. Several disorders of thyroid hormonogenesis, including congenital hypothyroidism, congenital goiter, and thyroid hormone organification defect IIA are occuing due to the mutation in that gene. Malignant thyroid tumors show irregularities in TPO level resulting in lower affinity for anti-TPO. This antibody may help us to differentiate between benign and malignant thyroid tumors.

Thyroid Stimulating Hormone (TSH)

P



Pituitary cell tissue stained with ANti-TSH stained using DAB chromogen

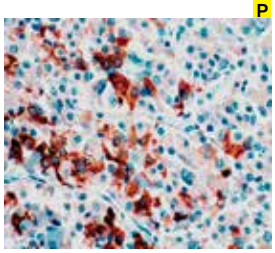
Clone:	5404
Isotype:	IgG1
Source:	Mouse
Immunogen:	TSH
Specificity:	Thyroid Stimulating Hormone (TSH)
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM033-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM033-10M**
Xmatrx®	**AX033-YCD, AX033-50D**
NanoVip™®	**AX033-4M**
Concentrated:	**MU033-UC, MU033-5UC**
Recommended Positive Control:	**FG-033M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-033M (Xmatrx & NanoVip™)**

Thyrotrophs produce Thyroid Stimulating Hormone (TSH). TSH is a 28 kD glycoprotein that contains 201 amino acid residues and is composed of alpha and beta subunits. The alpha subunit (MW 13kD) is immunologically similar to the alpha subunit of the other anterior pituitary hormones. The beta subunit is unique to TSH and is responsible for the specific biological activity of TSH. To identify thyrotrophs without cross-reactivity with gonadotrophs, antibodies directed to the TSH beta subunit must be used. This antibody stains TSH and b-TSH in cytoplasm of postive cells.

Thyroid Stimulating Hormone (TSH)

P



Pituitary cell tissue stained with Anti-TSH using AEC chromogen

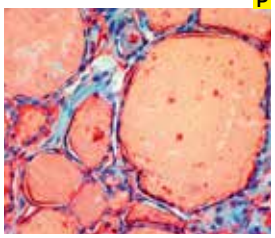
Clone:	Polyclonal
Source:	Rabbit
Immunogen:	Purified TSH from human pituitary gland
Specificity:	Thyroid Stimulating Hormone (TSH)
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR033-5R**
Ready-to-Use (Automated):	
***i*6000™**	**AR033-10R**
Xmatrx®	**AW033-YCD, AW033-50D**
NanoVip™®	**AW033-4M**
Concentrated:	**PU033-UP, PU033-5UP**
Recommended Positive Control:	**FG-033P (Manual & i6000)**
Recommended Microchamber Slide:	**FB-033P (Xmatrx & NanoVip™)**

Thyrotrophs produce Thyroid Stimulating Hormone (TSH). TSH is a 28 kD glycoprotein that contains 201 amino acid residues and is composed of alpha and beta subunits. The alpha subunit (MW 13kD) is immunologically similar to the alpha subunit of the other anterior pituitary hormones. The beta subunit is unique to TSH and is responsible for the specific biological activity of TSH. To identify thyrotrophs without cross-reactivity with gonadotrophs, antibodies directed to the TSH beta subunit must be used. This antibody stains positive for TSH in cytoplasm of thyrotrophs.

Thyroxine

P



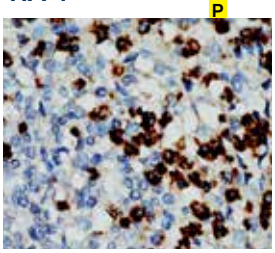
Thryroid tissue stained with Anti-Thyroxine using AEC chromogen

Clone:	D5
Isotype:	IgG1
Source:	Mouse
Immunogen:	Me-Thyroxine conjugated to bovine serum albumin
Specificity:	Thyroxine (T4)
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM034-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM034-10M**
Xmatrx®	**AX034-YCD, AX034-50D**
NanoVip™®	**AX034-4M**
Concentrated:	**MU034-UC, MU034-5UC**
Recommended Positive Control:	**FG-034M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-034M (Xmatrx & NanoVip™)**

The main hormones produced by the thyroid are Thyroxine (T4 or tetraiodothyronine) and, on a much smaller scale, triiodothyronine (T3). T4 and T3 have been demonstrated in normal and neoplastic thyroid follicular cells. In thyroid carcinoma, however, the iodine content may be 1/100 that of normal thyroid tissue, whereas thyroglobulin is much more abundant, occurring at 1/2 to 1/3 that of a normal thyroid. This antibody stains colloid in thyroid follicle and cytoplasm of thyroid follicular cells.

TIA-1



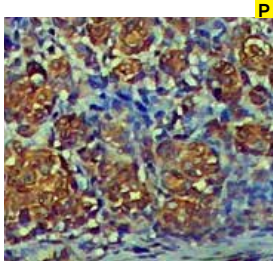
cytoplasm tissue stained with Anti-TIA using DAB chromogen

Clone:	2G9A10F5
Isotype:	IgG
Source:	Mouse
Immunogen:	Human bone marrow malignant cells from a non-B, non-T acute leukemia
Specificity:	TIA-1
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM529-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM529-10M**
Xmatrx®	**AX529-YCD, AX529-50D**
NanoVip™®	**AX529-4M**
Concentrated:	**MU529-UC, MU529-5UC**
Recommended Positive Control:	**FG-529M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-529M (Xmatrx & NanoVip™)**

The T cell intracellular antigen 1 (TIA-1) is a 17-kD cytoplasmic granule associated protein also designated as GMP-17, for granule membrane protein of 17 kD. The GMP-17/TIA-1 molecule is expressed in cells possessing cytolytic potential and could be involved in the signaling cascade of Fas (CD95)-mediated apoptosis. Within hematopoietic cell lines, the 2G9 monoclonal antibody (mAb) reacts with about 90% of CD16+, 50 – 60% of CD8+, and less than 10% of CD4+ normal peripheral blood lymphocytes. It reacts with almost all monocytes and granulocytes.

TIM3



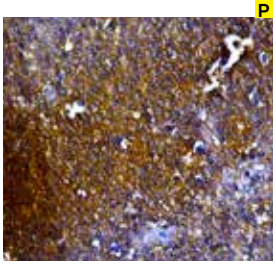
Lymph Node Tissue stained with Anti-TIM3 using DAB Chromogen

Clone:	IVD
Isotype:	IgG2a
Source:	Mouse
Immunogen:	Human TIM3
Specificity:	TIM3
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA82-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA82-10M**
Xmatrx®	**AXA82-YCD, AXA82-50D**
NanoVip™®	**AXA82-4M**
Concentrated:	**MUA82-UC, MUA82-5UC**
Recommended Positive Control:	**FG-A82M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A82M (Xmatrx & NanoVip™)**

T-cell immunoglobulin and mucin domain 3 (TIM3) is a member of immunoglobulin (Ig) and mucin domain (TIM) family, comprised of type-I cell surface glycoproteins. TIM3 expressed on interferon (IFN)-gamma (γ) secreting helper T (Th) cells, regulatory T cells (Tregs), CD8 + T cells, Dendritic cells (DCs), monocytes, and other leukocyte subsets, including natural killer (NK) cells. TIM3 plays a key role in inhibiting both adaptive and innate immune responses, potentially exerting either positive or negative effects, thus acting as an immune modulator.

TIGIT



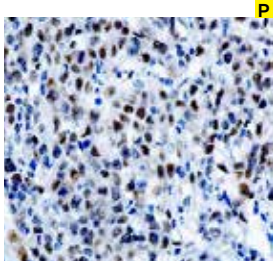
Renal clear cell carcinoma tissue stained with Anti-TIM3 using DAB Chromogen

Clone:	TIGIT/3018
Isotype:	IgG2c
Source:	Mouse
Immunogen:	Human TIGIT
Specificity:	TIGIT
Localization:	Membrane
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMC34-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMC34-10M**
Xmatrx®	**AXC34-YCD, AXC34-50D**
NanoVip™®	**AXC34-4M**
Concentrated:	**MUC34-UC, MUC34-5UC**
Recommended Positive Control:	**FG-C34M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-C34M (Xmatrx & NanoVip™)**

TIGIT (T cell immunoreceptor with Ig and ITIM domains) also known as VSIG9, VSTM3, and WUCAM, is an immune inhibitory receptor belongs to the poliovirus receptor family of immunoglobulins. It is a prominent immune checkpoint inhibitor expressed on various lymphocytes such as natural killer (NK) cells, effector T cells and regulatory CD4+ T cells. TIGIT binds with high affinity to PVR/CD155 which is expressed on tumor-infiltrating myeloid cells and carcinoma cells. Upon binding, it suppresses T cell activation, and inhibits T and NK cell cytotoxicity.

TLE-1



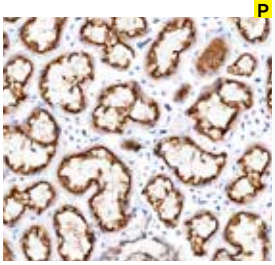
Colon tissue stained with Anti-TLE-1 using DAB Chromogen

Clone:	ZM93
Isotype:	IgG2a
Source:	Mouse
Immunogen:	Human TLE-1
Specificity:	TLE-1
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB58-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMB58-10M**
Xmatrx®	**AXB58-YCD, AXB58-50D**
NanoVip™®	**AXB58-4M**
Concentrated:	**MUB58-UC, MUB58-5UC**
Recommended Positive Control:	**FG-B58M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B58M (Xmatrx & NanoVip™)**

Transducin-like enhancer protein 1 (TLE1) is a protein that is encoded by the TLE1 gene family and involved in control of hematopoiesis, neuronal, and terminal epithelial differentiation. Expression of the TLE genes (TLE1, TLE2, TLE3 and TLE4) correlates with immature epithelial cells that are progressing toward a terminally differentiated state, suggesting a role during epithelial differentiation. Anti-TLE1 antibody is a sensitive and specific marker for synovial sarcoma than other markers including BCL2, epithelial membrane antigen (EMA) and cytokeratins. It is used to differentiate synovial sarcoma from other sarcomas, including histologically similar tumors such as malignant peripheral nerve sheath tumor.

TMPRSS2



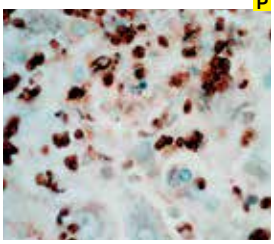
Salivary Gland tissue stained with Anti-TMPRSS2 using DAB chromogen

Clone:	H-4
Isotype:	IgG1, kappa
Source:	Mouse
Immunogen:	Human TMPRSS2
Specificity:	TMPRSS2
Localization:	Membrane
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD12-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD12-10M**
Xmatrx®	**AXD12-YCD, AXD12-50D**
NanoVip™®	**AXD12-4M**
Concentrated:	**MUD12-UC, MUD12-5UC**
Recommended Positive Control:	**FG-D12M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D12M (Xmatrx & NanoVip™)**

TMPRSS2 also designated PRSS10 or Transmembrane protease serine 2 or Serine protease 10, is a 492 amino acid type II transmembrane multimeric serine protease that belongs to the serine protease family. It contains type II transmembrane domain, a scavenger receptor cysteine-rich domain of group A, a LDL receptor class A domain and a serine protease domain. Serine proteases are involved in many physiological and pathological processes and this glycosylated serine protease is regulated by androgens. TMPRSS2 is expressed as a full length form and a cleaved protease domain on the plasma membrane of human bronchial epithelial cells, nasal goblet cells, small intestine epithelia, gastrointestinal tract, salivary gland, kidneys and pancreas.

Toxoplasma gondii



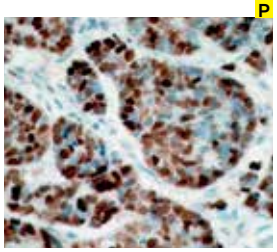
Infected cell tissue stained with Anti-Toxoplasma using DAB chromogen

Clone:	Polyclonal
Source:	Rabbit
Immunogen:	This antibody was produced by immunization of rabbits with live organisms of Toxoplasma gondii strain C56.
Specificity:	Toxoplasma gondii
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2 elegance
Manual/i6000:	HK547-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR125-5RE**
Ready-to-Use (Automated):	
***i*6000™**	**AR125-10RE**
Xmatrx®	**AW125-YCDE, AW125-50DE**
NanoVip™®	**AW125-4ME**
Concentrated:	**PU125-UPE, PU125-5UPE**
Recommended Positive Control:	**FG-125PE (Manual & i6000)**
Recommended Microchamber Slide:	**FB-125PE (Xmatrx & NanoVip™)**

Toxoplasma gondii is a widespread protozoan parasite of humans and vertebrae animals causing Toxoplasmosis. It is a facultatively polyxenous and heteroxenous protozoon that has developed numerous potential routes of transmission within and among different host species. In human hosts with a competent immune sytem, T.gondii infections are generally asymptomatic and chronic, with the organism remains in dormant tissue cysts often for the lifetime of the host. However in immunocompromised pateints, infection can lead to toxoplasmosis. The disease is chiefly characterized by the production of T. gondii tachyzoites which damages the central nervous sytem, and potentially be fatal if untreated

Topoisomerase II alpha



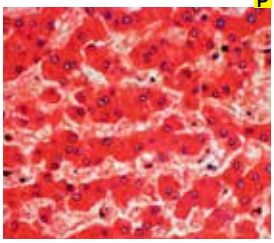
Breast carcinoma tissue stained with Anti-Topoisomerase-II alpha using DAB chromogen

Clone:	EP93
Isotype:	IgG
Source:	Rabbit
Immunogen:	A synthetic peptide corresponding to C-terminal residues of human Topoisomerase II alpha (TOP2A) protein.
Specificity:	Human Topoisomerase II alpha
Localization:	Nucleus/Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN823-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN823-10M**
Xmatrx®	**AY823-YCD, AY823-50D**
NanoVip™®	**AY823-4M**
Concentrated:	**NU823-UC, NU823-5UC**
Recommended Positive Control:	**FG-823N (Manual & i6000)**
Recommended Microchamber Slide:	**FG-823N (Xmatrx & NanoVip™)**

DNA topoisomerase II alpha (Topo-IIα) is an essential nuclear enzyme with its up-regulation demonstrated in different tumors. Topo II is required in chromatin condensation and segregation during mitosis. Topo II α is cell cycle regulated and its level peaks between G2 and M phase. It has been linked to cell proliferation and it may be the main isoform of Topo II involved mitotic processes. Topo II α passes one strand of DNA through a reversible break in a second DNA strand, which catalyzes the topological isomerization of DNA during cell cycle. Topo II α overexpression has been linked to a number of human malignancies and is the target for many chemotherapeutic agents.

Transferrin



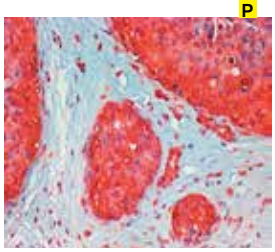
Liver tissue stained with Anti-Transferrin using AEC chromogen

Clone:	HT1/13.6.3
Isotype:	IgG1
Source:	Mouse
Immunogen:	Transferrin
Specificity:	Transferrin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR1
Manual/i6000:	HK521-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AM025-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM025-10M**
Xmatrx®	**AX025-YCD, AX025-50D**
NanoVip™®	**AX025-4M**
Concentrated:	**MU025-UC, MU025-5UC**
Recommended Positive Control:	**FG-025M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-025M (Xmatrx & NanoVip™)**

Human transferrin, an iron-binding protein, is produced mainly in the liver, and can be demonstrated within hepatocytes. Transferrin has also been demonstrated by immunohistology in a wide variety of other tissues including stomach, duodenum, gallbladder, thyroid, kidney, male and female reproductive tracts, skin, and in histiocytes. Such widespread occurrence of transferrin suggests evidence for the diverse roles that it may play such as iron transport across intestinal mucosa, intracellular iron transport, and providing non-specific immunity against micro-organisms by chelating free iron.

Transforming Growth Factor (TGF), Alpha



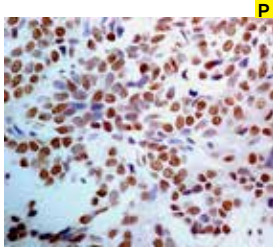
Breast carcinoma tissue showing Anti-TGF positivity stained using AEC chromogen

Clone:	TGF88
Isotype:	IgG1
Source:	Mouse
Immunogen:	Synthetic peptide representing a unique epitope to pro-TGF-α covalently bound to keyhole limpet hemocyanin
Specificity:	Transforming growth factor, alpha (TGF-α)
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM377-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM377-10M**
Xmatrx®	**AX377-YCD, AX377-50D**
NanoVip™®	**AX377-4M**
Concentrated:	**MU377-UC, MU377-5UC**
Recommended Positive Control:	**FG-377M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-377M (Xmatrx & NanoVip™)**

Transforming Growth Factor, alpha (TGF-α) is a 50 amino acid peptide that is involved in the regulation of normal and malignant cell growth. The mature peptide is released following proteolytic cleavage from a 160 amino acid transmembrane precursor molecule. It is one of the various ligands for EGFR and seem to be involved in the growth regulation of intestinal mucosa and might be related to the development and progression of gastrointestinal tumors. Macrophages secrete TGF-α to trigger proliferation of carcinoma cells. TGF-α is synthesized by several cells, like epidermal keratinocytes, fibroblasts, and cells of hematopoetic origin like eosinophils and simulated macrophages.

Thyroid Transcription Factor (TTF-1)



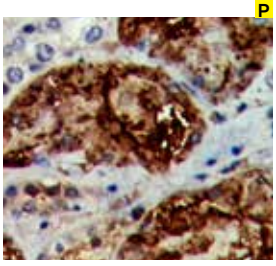
Thyroid tissue stained with Anti-TTF-1 using DAB chromogen

Clone:	SP141
Isotype:	IgG
Source:	Rabbit
Immunogen:	Recombinant TTF-1 protein
Specificity:	TTF-1
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN887-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN887-10M**
Xmatrx®	**AY887-YCD, AY887-50D**
NanoVip™®	**AY887-4M**
Concentrated:	**NU887-UC, NU887-5UC**
Recommended Positive Control:	**FG-887N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-887N (Xmatrx & NanoVip™)**

Thyroid Transcription Factor-1 (TTF-1), also known as thyroid-specific enhancer-binding protein (T/EBP), is a 40 kD protein that is a member of NKx2 family of homeodomain transcription factors that regulates the expression of thyroid- and lung-specific genes. It is a very selective marker for adenocarcinomas of lung and thyroid origin. Nuclear localization of this protein is seen in the epithelial cells of thyroid gland and lung.

Transthyretin



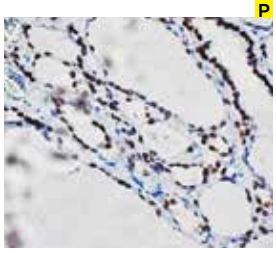
Liver tissue stained with Anti-Transthyretin using DAB Chromogen

Clone:	TTR/4292
Isotype:	IgG2c
Source:	Mouse
Immunogen:	Human Transthyretin
Specificity:	Transthyretin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA93-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA93-10M**
Xmatrx®	**AXA93-YCD, AXA93-50D**
NanoVip™®	**AXA93-4M**
Concentrated:	**MUA93-UC, MUA93-5UC**
Recommended Positive Control:	**FG-A93M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A93M (Xmatrx & NanoVip™)**

Transthyretin (TTR), previously called thyroxin-binding Prealbumin, is a 55 kDa homotetramer of 14-15 kDa monomers that is found in plasma. It is a homo-tetrameric carrier protein, which transports thyroid hormones in the plasma and cerebrospinal fluid. It is also involved in the transport of retinol (vitamin A) in the plasma by associating with retinolbinding protein. This protein may also be involved in other intracellular processes including proteolysis, nerve regeneration, autophagy and glucose homeostasis.

TTF-1



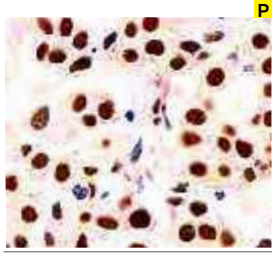
Lung carcinoma tissue stained with TTF-1 IHC stain on using DAB chromogen

Clone:	NX2.1/690
Isotype:	IgG2b, kappa
Source:	Mouse
Immunogen:	Recombinant TTF-1 protein
Specificity:	TTF-1
Localization:	Nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMA25-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA25-10M**
Xmatrx®	**AXA25-YCD, AXA25-50D**
NanoVip™®	**AXA25-4M**
Concentrated:	**MUA25-UC, MUA25-5UC**
Recommended Positive Control:	**FG-A25M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A25M (Xmatrx & NanoVip™)**

Thyroid Transcription Factor-1 (TTF-1), also known as thyroid-specific enhancer-binding protein (T/EBP), is a 40 kD protein that is a member of NKx2 family of homeodomain transcription factors that regulates the expression of thyroid- and lung-specific genes. It is a very selective marker for adenocarcinomas of lung and thyroid origin. Nuclear localization of this protein is seen in the epithelial cells of thyroid gland and lung. The anti-TTF-1 antibody is a useful tool for differentiating pulmonary adenocarcinoma from metastatic breast carcinoma and mesothelioma

TEF-3



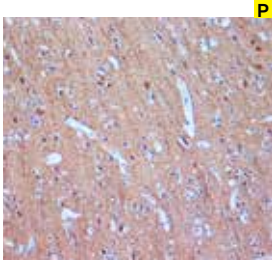
Esophagus tissue stained with Anti-TEF-3 using DAB chromogen

Clone:	B-5
Isotype:	IgG1, Kappa
Source:	Mouse
Immunogen:	Human TEF-3
Specificity:	TEF-3
Localization:	Nuclear
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000	HK522-XAK
Xmatrx	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD58-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD58-10M**
Xmatrx®	**AXD58-YCD, AXD58-50D**
NanoVip™®	**AXD58-4M**
Concentrated:	**MUD58-UC, MUD58-5UC**
Recommended Positive Control:	**FG-D58M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D58M (Xmatrx & NanoVip™)**

TEF-3, alternatively named TEAD4 (TEA domain family member 4), RTEF1, EFTR-2, TEFR-1, TCF13L1, or hRTEF-1B, is a 427-amino acid protein belonging to the transcriptional enhancer factor (TEF) family. Serving as a transcriptional regulator, TEF-3 is expressed in the nucleus of skeletal muscle. Its specific and non-cooperative binding to the M-CAT motif in the promoters of muscle-specific genes plays a crucial role in directing the subsequent expression of these genes.

Tubulin β3



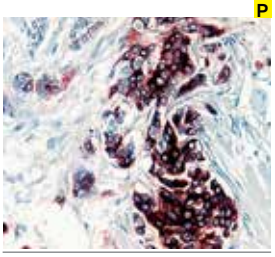
Brain tissue stained with Anti-Tubulin β3 using DAB chromogen

Clone:	TUJ1
Isotype:	IgG1
Source:	Mouse
Immunogen:	Full-length human TUBB3 protein
Specificity:	TUBB3
Localization:	Cell membrane
Pre-treatment:	NA
Manual/i6000:	NA
Xmatrx:	NA
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM952-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM952-10M**
Xmatrx®	**AX952-YCD, AX952-50D**
NanoVip™®	**AX952-4M**
Concentrated:	**MU952-UC, MU952-5UC**
Recommended Positive Control:	**FG-952M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-952M (Xmatrx & NanoVip™)**

Beta tubulins are one of two core protein families (alpha and beta tubulins) that heterodimerize and assemble to form microtubules. This protein is primarily expressed in neurons and may be involved in neurogenesis and axon guidance and maintenance. In adults tubulin beta 3 (TUBB3) is primarily expressed in neurons and is commonly used as a neuronal marker. It plays an important role in neuronal cell proliferation and differentiation. Mutations in this gene cause congenital fibrosis of the type 3 extraocular muscles. Tubulin beta 3 (TUBB3) is also found in a wide range of tumors. Studies indicate that it is a predictive and prognostic marker in various tumors.

Tumor-Associated Glycoprotein (TAG-72)



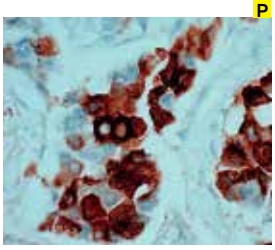
Breast carcinoma tissue stained with Anti-TAG-72 (BCA) using DAB chromogen

Clone:	B72.3
Isotype:	IgG1
Source:	Mouse
Immunogen:	Membrane-enriched fraction of a breast carcinomaderived from a liver metastasis
Specificity:	Tumor-Associated Glycoprotein (TAG-72)
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000	HK522-XAK
Xmatrx	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM054-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM054-10M**
Xmatrx®	**AX054-YCD, AX054-50D**
NanoVip™®	**AX054-4M**
Concentrated:	**MU054-UC, MU054-5UC**
Recommended Positive Control:	**FG-054M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-054M (Xmatrx & NanoVip™)**

Tumor-Associated Glycoprotein 72 (TAG-72) is an oncofetal mucin antigen expressed by normal secretory endometrium and most human adenocarcinomas, including colorectal, gastric, pancreatic, mammary, and ovarian. This antigen is expressed by invasive ductal breast carcinomas, colon, pancreatic, gastric, esophageal, lung, ovarian and endometrial adenocarcinomas. It is not expressed by leukemias, lymphomas, sarcomas, mesotheliomas, melanomas, or benign tumors. This antigen is also expressed on normal secretory endometrium, but not on other normal tissues.

Tumor-Associated Glycoprotein (TAG-90, BCA)



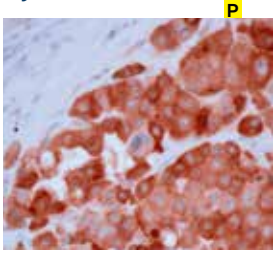
Breast carcinoma tissue stained with Anti-TAG-90 (BCA) using DAB chromogen

Clone:	B6.2
Isotype:	IgG1
Source:	Mouse
Immunogen:	Membrane-enriched fraction of breast tumor metastatic to the liver
Specificity:	90 kD tumor-associated glycoprotein
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM005-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM005-10M**
Xmatrx®	**AX005-YCD, AX005-50D**
NanoVip™®	**AX005-4M**
Concentrated:	**MU005-UC, MU005-5UC**
Recommended Positive Control:	**FG-005M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-005M (Xmatrx & NanoVip™)**

Clone B6.2 recognizes a 90 kD glycoprotein in mammary carcinomas, metastatic lymph nodes, lung carcinomas, and adenocarcinomas. This antibody reacts intensely with tumor cells, yet is unreactive with cells in normal tissue. This antibody reacts equally with breast carcinoma, breast fibroadenoma, lobular carcinoma of the breast, duct carcinoma of the breast, and lung carcinoma. It also reacts with gastric and papillary adenocarcinomas, and adenocarcinoma of the colon, ovary, pancreas, lung and prostate. This antibody stains positive in the cytoplasm of tumor cells.

Tyrosinase



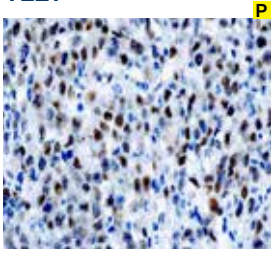
Melanoma tissue stained with Anti-Tyrosinase using DAB chromogen

Clone:	Ty/G5
Isotype:	IgG2a
Source:	Mouse
Immunogen:	Human Tyrosinase
Specificity:	Tyrosinase
Localization:	Cytoplasm/nucleus
Pre-treatment:	EZ-AR2
Manual/i6000:	HK552-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM535-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AM535-10M**
Xmatrx®	**AX535-YCD, AX535-50D**
NanoVip™®	**AX535-4M**
Concentrated:	**MU535-UC, MU535-5UC**
Recommended Positive Control:	**FG-535M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-535M (Xmatrx & NanoVip™)**

Tyrosinase is a copper-containing enzyme present in plant and animal tissues that catalyzes the production of melanin and other pigments from tyrosine by oxidation. The gene for tyrosinase is regulated by the microphthalmia-associated transcription factor. A mutation in the tyrosinase gene resulting in impaired tyrosinase production results in type I oculocutaneous albinism, a hereditary disease that one in every 17,000 person has in the US. Anti-tyrosinase has been found to be quite specific for melanotic lesions such as malignant melanoma, and melanotic neurofibroma. Essentially no carcinomas express this marker.

TLE1



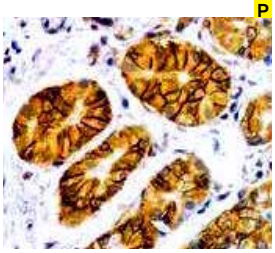
Colon tissue stained with Anti-TLE1 using DAB Chromogen

Clone:	TLE1/2062
Source:	Mouse
Immunogen:	Human TLE1
Specificity:	TLE1
Localization:	Nuclear
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD40-5R**
Ready-to-Use (Automated):	
***i*6000™**	**AMD40-10R**
Xmatrx®	**AXD40-YCD, AXD40-50D**
NanoVip™®	**AXD40-4M**
Concentrated:	**MUD40-UC, MUD40-5UC**
Recommended Positive Control:	**FG-D40M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D40M (Xmatrx & NanoVip™)**

Transducin-like enhancer protein 1 (TLE1) is a protein that is encoded by the TLE1 gene family and involved in control of hematopoiesis, neuronal, and terminal epithelial differentiation. Expression of the TLE genes (TLE1, TLE2, TLE3 and TLE4) correlates with immature epithelial cells that are progressing toward a terminally differentiated state, suggesting a role during epithelial differentiation. Anti-TLE1 antibody is a sensitive and specific marker for synovial sarcoma than other markers including BCL2, epithelial membrane antigen (EMA) and cytokeratins. It is used to differentiate synovial sarcoma from other sarcomas, including histologically similar tumors such as malignant peripheral nerve sheath tumor

TMPRSS2



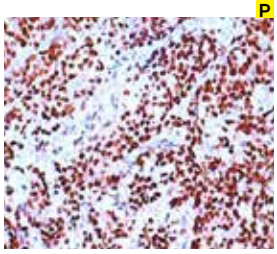
Salivary Gland tissue stained with Anti-TMPRSS2 using DAB chromogen

Clone:	TMPRSS2/7410
Isotype:	IgG2b, kappa
Source:	Mouse
Immunogen:	Human TMPRSS2
Specificity:	TMPRSS2
Localization:	Mem & Cyt
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK552-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMD61-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMD61-10M**
Xmatrx®	**AXD61-YCD, AXD61-50D**
NanoVip™®	**AXD61-4M**
Concentrated:	**MUD61-UC, MUD61-5UC**
Recommended Positive Control:	**FG-D61M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D61M (Xmatrx & NanoVip™)**

TMPRSS2 (Transmembrane Serine Protease 2) is a multimeric serine protease consisting of 492 amino acids and belonging to the serine protease family. It is involved in various physiological and pathological processes and plays a crucial role in the viral entry process for coronaviruses and influenza viruses by proteolytically activating key viral glycoproteins. The expression of TMPRSS2 is predominant in prostate, kidney, small intestine, colon, stomach, salivary gland, GI tract, and lung epithelium. Furthermore, TMPRSS2 is up-regulated by androgenic hormones in prostate carcinoma, suggesting its potential involvement in prostate carcinogenesis

TRPS-1



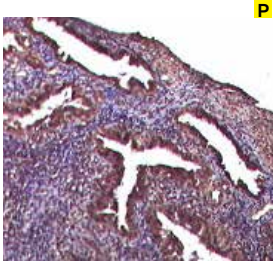
Breast tissue stained with Anti-TRPS1 using DAB chromogen

Clone:	TRPS1/8131R
Isotype:	IgG, kappa
Source:	Rabbit
Immunogen:	Human TRPS-1
Specificity:	TRPS-1
Localization:	Nuclear
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK552-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AND65-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AND65-10M**
Xmatrx®	**AYD65-YCD, AYD65-50D**
NanoVip™®	**AYD65-4M**
Concentrated:	**NUD65-UC, NUD65-5UC**
Recommended Positive Control:	**FG-D65N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D65N (Xmatrx & NanoVip™)**

TRPS-1 (Trichorhinophalangeal syndrome 1), a GATA transcription factor, is highly prevalent in both Estrogen Receptor alpha (ERα+ and ERα-) breast carcinoma subtypes. It plays a crucial role in mesenchymal-to-epithelial transition during development and differentiation of various tissues, including cartilage, bone, kidney, and hair follicles. Identified as a regulator of normal mammary epithelial cell growth, TRPS-1 is implicated in breast carcinoma development. Importantly, it exhibits minimal expression in various other carcinomas, indicating its specificity for breast carcinoma, especially in triple-negative breast carcinoma (TNBC). These findings emphasize TRPS-1's importance as a specific and valuable marker for breast carcinoma, especially in the context of TNBC.

Uroplakin IIIa



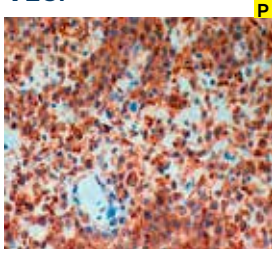
Bladder tissue stained with Anti-UPIIIa using DAB Chromogen

Clone:	C-6
Isotype:	IgG2a
Source:	Mouse
Immunogen:	Human Uroplakin IIIa
Specificity:	Uroplakin IIIa
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AMB38-5R**
Ready-to-Use (Automated):	
***i*6000™**	**AMB38-10R**
Xmatrx®	**AXB38-YCD, AXB38-50D**
NanoVip™®	**AXB38-4M**
Concentrated:	**MUB38-UC, MUB38-5UC**
Recommended Positive Control:	**FG-B38M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-B38M (Xmatrx & NanoVip™)**

Uroplakins IIIa (UPIIIa) belongs to a family of transmembrane proteins Uroplakins that are specific differentiation products of urothelial cells. It is a component of the asymmetric unit membrane (AUM) and is a highly specialized bio-membrane made by terminally differentiated urothelial cells. It plays a major role in AUM-cytoskeleton interaction in terminally differentiated urothelial cells. UPIIIa contributes to the formation of urothelial glycocalyx, which may play an important role in preventing bacterial adherence through FimH bacterial protein binding leading to bladder infection. It is present in the urothelial surface membrane of human renal pelvis, ureter, bladder and urethra.

VEGF



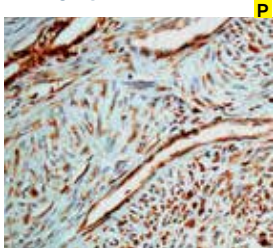
Angiosarcoma tissue stained with Anti-VEGF using DAB chromogen

Clone:	Polyclonal
Source:	Rabbit
Immunogen:	Human recombinant VEGF165
Specificity:	VEGF
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AR483-5R**
Ready-to-Use (Automated):	
***i*6000™**	**AR483-10R**
Xmatrx®	**AW483-YCD, AW483-50D**
NanoVip™®	**AW483-4M**
Concentrated:	**PU483-UP, PU483-5UP**
Recommended Positive Control:	**FG-483P (Manual & i6000)**
Recommended Microchamber Slide:	**FB-483P (Xmatrx & NanoVip™)**

Vascular endothelial factors (VEGFs) are a family of closely related growth factors having a conserved pattern of eight cysteine residues and sharing common VEGF receptors. VEGF receptors stimulate the proliferation of endothelial cells, induce angiogenesis, and increase vascular permeability in both large and small vessels. The mitogenic activity of VEGFs appears to be mediated by specific VEGF receptors.

Vimentin



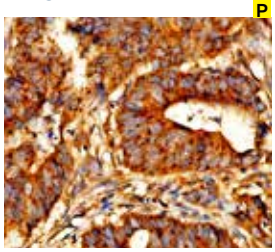
Skin tumor stained with Anti-Vimentin using DAB chromogen

Clone:	V9
Isotype:	IgG1
Source:	Mouse
Immunogen:	Vimentin purified from porcine eye lens
Specificity:	Vimentin
Localization:	Cytoplasm
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM483074-5R**
Ready-to-Use (Automated):	
***i*6000™**	**AM483074-10R**
Xmatrx®	**AX483074-YCD, AX483074-50D**
NanoVip™®	**AX483074-4M**
Concentrated:	**MU483074-UC, MU483074-5UC**
Recommended Positive Control:	**FG-483074M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-483074M (Xmatrx & NanoVip™)**

Vimentin is the major intermediate filament in a variety of mesenchymal or mesenchymally derived non-muscle cell types. Vimentin is found in all types of sarcomas and lymphomas. Positive staining for vimentin is seen in most cells of fibrosarcomas, liposarcomas, malignant fibrous histocytomas, angiosarcomas, chondrosarcomas and lymphomas. When the vimentin antibody is used in combination with other antibodies as a panel, it can aid in the histological classification of normal and malignant tissues. This antibody immunohistochemically labels a variety of mesenchymal cells.

VEGF



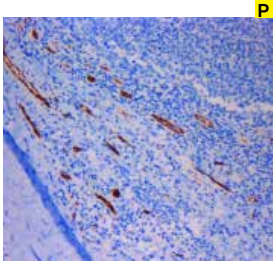
Colon carcinoma tissue stained with Anti-VEGF using DAB chromogen

Clone:	VEGFA/7758R
Isotype:	IgG1, kappa
Source:	Rabbit
Immunogen:	Human VEGF
Specificity:	VEGF
Localization:	Cyt & Mem
Pre-treatment:	EZ-AR2 Elegance
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AND26-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AND26-10M**
Xmatrx®	**AYD26-YCD, AYD26-50D**
NanoVip™®	**AYD26-4M**
Concentrated:	**NUD26-UC, NUD26-5UC**
Recommended Positive Control:	**FG-D26N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-D26N (Xmatrx & NanoVip™)**

VEGF (vascular endothelial growth factor) is a 45 kDa homodimeric, disulfide-linked glycoprotein belongs to the VEGF/PDGF family of growth factors. It is involved in angiogenesis, permeabilization of blood vessels, and plays a central role in the regulation of vasculogenesis. Additionally, VEGF play an important role in normal tissue development, tissue regeneration, tumor cell proliferation, neovascular eye diseases, and carcinoma immunity. VEGF have been found to be expressed almost exclusively on endothelial cells

vWF



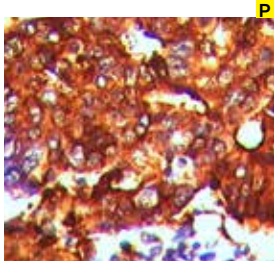
Squamous lung carcinoma tissue stained with Anti-VISTA using DAB Chromogen

Clone:	VWF/2480
Isotype:	IgG1
Source:	Mouse
Immunogen:	Human vVF
Specificity:	vVF
Localization:	Cytoplasm
Pre-treatment:	EZ-AR1
Manual/i6000:	HK521-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AMA04-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AMA04-10M**
Xmatrx®	**AXA04-YCD, AXA04-50D**
NanoVip™®	**AXA04-4M**
Concentrated:	**MUA04-UC, MUA04-5UC**
Recommended Positive Control:	**FG-A04M (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A04M (Xmatrx & NanoVip™)**

von Willebrand Factor (vWF) (Factor VIII related Ag) is a multimeric glycoprotein that is found in endothelial cells, plasma and platelets. It acts as a carrier protein for Factor VIII and promotes platelet adhesion and aggregation and transport of various proteins in the blood. vWF undergoes a variety of post translational modifications that influence the affinity and availability for Factor VIII, including cleavage of the propeptide and formation of Nterminal disulfide bonds.

Villin



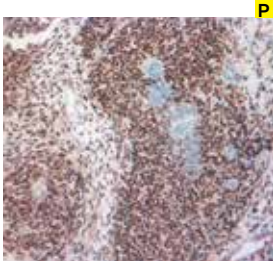
Colon Carcinoma tissue stained with Anti-Villin using DAB Chromogen

Clone:	VIL1/4107R
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human Villin
Specificity:	Villin
Localization:	Cyt & Mem
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**ANA42-5M**
Ready-to-Use (Automated):	
***i*6000™**	**ANA42-10M**
Xmatrx®	**AYA42-YCD, AYA42-50D**
NanoVip™®	**AYA42-4M**
Concentrated:	**NUA42-UC, NUA42-5UC**
Recommended Positive Control:	**FG-A42N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-A42N (Xmatrx & NanoVip™)**

Villin is a 95-kDa F-actin bundling and severing protein belongs to gelsolin family. Unlike the ubiquitously expressed gelsolin, villin expression is restricted to epithelial cells with a brush border, like epithelial cells of the intestinal mucosa, gall bladder, renal proximal tubules and ductuli efferentes of the testis. It is localized to the apical cytoplasm and brush borders of these cells. It can interact with actin in a Ca2+ and phosphoinositideregulated manner. Villin has been reported to be an epithelial cell-specific anti-apoptotic protein, and to have an important function in regulating actin dynamics, cell morphology, epithelial-to-mesenchymal transitions, cell migration and cell survival.

WT1



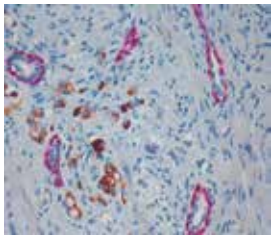
Wilm's tumor tissue stained with Anti-WT-1 using DAB chromogen

Clone:	WT1/1434R
Isotype:	IgG
Source:	Rabbit
Immunogen:	Recombinant human WT1 protein
Specificity:	WT1
Localization:	Nucleus & Cytoplasm
Pre-treatment:	EZ-AR1 Elegance
Manual/i6000:	HK546-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AN940-5M**
Ready-to-Use (Automated):	
***i*6000™**	**AN940-10M**
Xmatrx®	**AY940-YCD, AY940-50D**
NanoVip™®	**AY940-4M**
Concentrated:	**NU940-UC, NU940-5UC**
Recommended Positive Control:	**FG-940N (Manual & i6000)**
Recommended Microchamber Slide:	**FB-940N (Xmatrx & NanoVip™)**

WT-1 monoclonal antibody recognizes a 47-55 kDa tumor suppressor protein, identified as Wilm's Tumor (WT1) protein. The antibody reacts with all isoforms of the full-length WT1 and also identifies WT1 lacking exon 2-encoded amino acids, frequently found in subsets of sporadic Wilm's tumors.WT1, a sporadic and familial pediatric kidney tumor, is genetically heterogeneous. Wilm's tumor is associated with mutations of WT1, a zinc-finger transcription factor that is essential for the development of the metanephric kidney and the urogenital system. The WT1 gene is normally expressed in fetal kidney and mesothelium, and its expression has been suggested as a marker for Wilm's tumor and mesothelioma.

PIN4 (p63 + CK HMW + p504S)



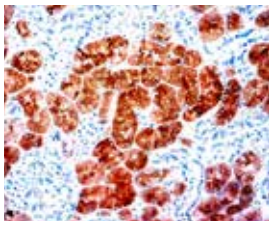
Prostate carcinoma. stained with anti-PIN4

Clone:	4A4+34ßE12
Isotype:	IgG1
Source:	Mouse+Rabbit
Immunogen:	Recombinant human PIN4 protein
Specificity:	PIN4
Localization:	Nucleus & Cytoplasm
Pre-treatment:	AR Citra Plus/EZ-AR 2
Manual/i6000:	HK081-5K
Xmatrx:	HX032-YCD
NanoVip™:	HX044-08XN

Ready-to-Use (Manual):	**AM448-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AM448-10ME**
Xmatrx®	**AX448-YCDE, AX448-50DE**
NanoVip™®	**AX448-4ME**
Concentrated:	**MU448-UCE, MU448-5UCE**
Recommended Positive Control:	**FG-448ME (Manual & i6000)**
Recommended Microchamber Slide:	**FB-448ME (Xmatrx & NanoVip™)**

This antibody cocktail recognizes Prostate Intraepithelial Neoplasia (PIN) in the tissues stained by immunohistochemical techniques. A cocktail of these three antibodies might allow simultaneous demonstration of P504S, HMW CK and p63 using a single immunostain. The combination of P504S + HMW CK + p63 (PIN4 Cocktail) may be extremely useful for studying prostatic intraepithelial neoplasia, especially in difficult cases and in cases with limited tissue. For Research Use only, not for use in diagnostic procedures. For research use only. Not for use in diagnostic procedures.

FTL



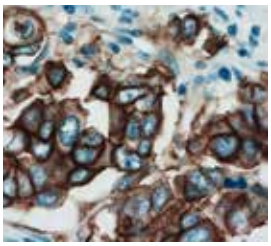
Lung Cancer stained with anti-FTL

Clone:	FTL/1389
Isotype:	IgG1
Source:	FTL/1389
Immunogen:	Human FTL
Specificity:	FTL
Localization:	Mem
Pre-treatment:	EZ-AR1
Manual/i6000:	HK521-XAK
Xmatrx:	HX031-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AM935-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AM935-10ME**
Xmatrx®	**AX935-YCDE, AX935-50DE**
NanoVip™®	**AX935-4ME**
Concentrated:	**MU935-UCE, MU935-5UCE**
Recommended Positive Control:	**FG-935ME (Manual & i6000)**
Recommended Microchamber Slide:	**FB-935ME (Xmatrx & NanoVip™)**

Ferritin is the major intracellular iron storage protein in prokaryotes and eukaryotes. A major function of ferritin is the storage of iron in a soluble and nontoxic state. Mammalian ferritins consist of 24 subunits made up of 2 types of polypeptide chains, ferritin heavy chain and ferritin light chain. Ferritin heavy chains catalyze the first step in iron storage, the oxidation of Fe (II), whereas ferritin light chains promote the nucleation of ferrihydrite, enabling storage of Fe (III). Light chain ferritin is involved in cataracts by at least two mechanisms, hereditary hyperferritinemia cataract syndrome, in which light chain ferritin is overexpressed in serum and tissues, and oxidative stress, an important factor in the development of ageing-related cataracts.

c-erbB-2 (HER-2/neu)



Breast carcinoma. stained with anti-c-erbB-2 (HER-2/neu)

Clone:	SP3
Isotype:	IgG
Source:	Rabbit
Immunogen:	Human c-erbB-2 (HER-2/neu)
Specificity:	c-erbB-2 (HER-2/neu)
Localization:	Mem
Pre-treatment:	EZ-AR2
Manual/i6000:	HK522-XAK
Xmatrx:	HX032-YCD
NanoVip™:	HX046-08XN

Ready-to-Use (Manual):	**AN753-5ME**
Ready-to-Use (Automated):	
***i*6000™**	**AN753-10ME**
Xmatrx®	**AY753-YCDE, AY753-50DE**
NanoVip™®	**AY753-4ME**
Concentrated:	**NU753-UCE, NU753-5UCE**
Recommended Positive Control:	**FG-753ME (Manual & i6000)**
Recommended Microchamber Slide:	**FB-753ME (Xmatrx & NanoVip™)**

c-erbB-2 is a receptor tyrosine kinase of the c-erbB family. It is closely related in structure to the epidermal growth factor receptor. Amplification or over-expression of the erbB-2 gene occurs in approximately 15-30% of breast cancers. It is strongly associated with increased disease recurrence and a poor prognosis. Over-expression is also known to occur in ovarian, stomach, and aggressive forms of uterine cancer, such as uterine serous endometrial carcinoma. c-erbB-2 oncoprotein is detectable in a proportion of breast and other adenocarcinomas, as well as transitional cell carcinomas.

IHC Detection Systems

Super Sensitive™ IHC Detection Systems

Immunohistochemistry is a highly sensitive method that allows the localization of an antigen within a cell or a tissue with high resolution. The method is based on the use of a primary antibody that specifically binds to its complementary antigen. The bound antibody may then be visualized by a variety of methods such as colorimetric end points.

BioGenex offers three basic types of IHC Detection Systems:

1. New & Improved 1-Step Polymer HRP Kit IHC

BioGenex New & Improved Super Sensitive™ 1-Step Polymer-HRP Detection System uses a non-streptavidin-biotin based proprietary micro polymer-complex technology to minimize background staining. The Polymer-HRP conjugated secondary antibody binds to the primary antibody and is visualized by diaminobenzidine (DAB).

Features & Benefits:

- Proprietary micro polymer-complex technology
- High sensitivity for low abundant proteins
- Universal system for rabbit and mouse antibodies
- Robust and specific staining for nuclear, cytoplasmic, and membrane antigens
- Clean, crisp, and reproducible results
- Short protocol and fast turnaround time

2. New & Improved Polymer HRP Kits IHC

BioGenex offers the New & Improved Poly-HRP Super Sensitive™ detection system, which uses a non-streptavidin-biotin based proprietary micro polymer-complex technology to minimize the background staining. This kit enables the chromogenic detection of antigen-antibody binding reactions with unmatched sensitivity and clean and intense staining with the shortest assay protocol.

Features and Benefits:

- Fast 40 min turn-around time
- Universal system for rabbit and mouse antibodies
- Unmatched sensitivity allows for higher antibody dilution and cost reduction
- Robust and specific staining for low abundant nuclear, cytoplasmic, and membrane antigens

3. Super SensitiveTM (SS) Polymer-HRP IHC Detection System

This is a novel detection system using a non-biotin polymeric technology that makes use of two major components: Super Enhancer and a Poly-HRP reagent. As the system is not based on the biotin-avidin system, problems associated with endogenous biotin are completely eliminated. The enzyme Horseradish Peroxidase (HRP) catalyzes the conversion of chromogenic substrates (e.g. DAB, AEC) into colored products facilitating tissue staining.

Features & Benefits:

High signal to noise ratio without endogenous biotin background

- Excellent sensitivity for weakly expressed antigens
- Universal system for rabbit and mouse antibodies
- Excellent cell penetration ability for intense nuclear, cytoplasmic and membrane antigen staining
- Enabling higher dilution of antibodies for reduced cost
- Available in barcode labeled (Xmatrx®, i6000™) vials for automation or in drop bottles for easy to use manual staining

4. Super SensitiveTM (SS) Link-Label IHC Detection System

A classic system based on the highly specific and sensitive streptavidin-biotin interaction to detect a bound antibody. These kits include multi-Link – a mix of anti-mouse and anti-rabbit IgGs conjugated to multiple biotin molecules and a Label -Strepavidin conjugated with an enzyme (Horseradish peroxidase (HRP) or Alkaline Phosphatase (AP)). The reaction takes place in following steps:

1. Cells or tissues are prepared and incubated with an unlabeled primary antibody that will bind to the antigen.
2. The bound antibody is detected with a LINK (species-specific secondary antibody conjugated to biotin).
3. The bound secondary antibody is then allowed to react with Streptavidin conjugated with an enzyme (Label). Streptavidin binds extremely strongly and irreversibly to the biotin residues on the secondary antibody resulting in the addition of multiple enzyme to

5. AP Detection Kit IHC

Super Sensitive™ (SS) Link-Label IHC Detection System is a classic system based on specific and sensitive streptavidin-biotin interaction to detect a bound primary antibody. These kits include multi-Link – a mix of anti-mouse and anti-rabbit IgGs conjugated to multiple biotin molecules, and a Label – Streptavidin conjugated with an enzyme Alkaline Phosphatase (AP).

Features & Benefits:

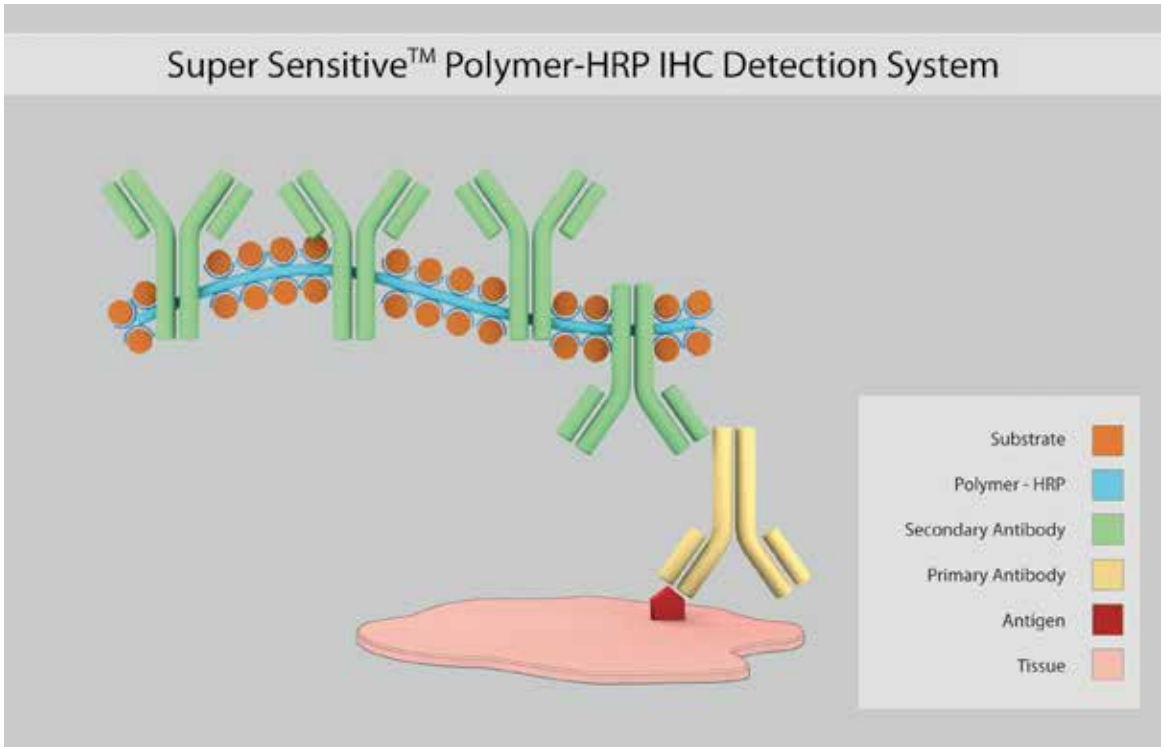
- Improved staining of weak antigens
- User-friendly and extensive choice of kit formats designed for use with human, animal, or rodent tissues
- A wide choice of chromogens offered
- Intense staining and reproducible results

6. HRP Detection Kit IHC

BioGenex Super Sensitive™ (SS) Link-Label IHC Detection System is a classic system based on highly specific and sensitive streptavidin-biotin interaction to detect a bound primary antibody. These kits include multi-Link – a mix of anti-mouse and anti-rabbit IgGs conjugated to multiple biotin molecules, and a Label – Streptavidin conjugated with an enzyme Horseradish peroxidase (HRP).

Features & Benefits:

- Improved staining against weak antigenicity
- User-friendly and extensive choice of kit formats designed for use with human, animal, or rodent tissues
- Intense staining and reproducible results



Super Sensitive™ IHC Detection System kits Composition

For manual use (drop bottles)

For i6000™ Automation (Barcode labeled)

For Xmatrx® Automation (Elite - Barcode labeled vials)

Detection Systems - LINK LABEL (For mouse & rabbit antibodies)

SKU	Size	Multi-Link	Label	DAB buffer	DAB Chromogen	Peroxide block	Power block	Hematox.	Negative ctrl IgG
QA900-9LE	500 test	50 mL	AP 50 mL	-	-	-	-	-	-
QP900-9LE	500 test	50 mL	HRP 50 mL	-	-	-	-	-	-
QP300-XAKE	1000	100 mL	HRP 100 mL	-	-	-	-	-	-
LP000-ULE	1000+	5 mL (Conc.)	HRP 5 mL (Conc.)	-	-	-	-	-	-
LA000-ULE	1000+	5 mL (Conc.)	AP 5 mL (Conc.)	-	-	-	-	-	-

Detection Systems - Super Sensitive Polymer HRP (For mouse & rabbit antibodies)

SKU	Size	Super enhancer	Polymer-HRP	DAB buffer	DAB Chromo.	Peroxide block	Power block	Hematox.	EZ-AR Eleg. 1,2.	Negative ctrl IgG
QD400-60KE	60 test	6 mL	6 mL	10 mL	1 mL	6 mL	6 mL	6 mL	-	1X3 mL 1X3 mL
QD420-YIKE	500 test	50 mL	50 mL	50 mL	2.5 mL	-	-	-	-	-
QD430-XAKE	1000 test	100 mL	100 mL	100 mL	10 mL	-	-	-	-	-
QD440-XAKE	1000 test	100 mL	100 mL	-	-	-	-	-	-	-
QD410-YAXE - i6000™	200 test	20 mL	20 mL	5x10 mL	4mL	20 mL	20 mL	20 mL	-	-
QD550-YCXE Xmatrx® -Infinity	200 test	2X16mL	2X16mL	4x13 mL	4 mL	3x16 mL	3x16 mL	3x16 mL	1X16 mL	-
QD550-YCDE Xmatrx®-Elite	200 test	2X16mL	2X16mL	4x13 mL + 5 barcode labeled vials	4 mL	3x16 mL	3x16 mL	3x16 mL	1x16 mL	-
QD551-YCDEN **NanoVip™** (Closed System)	100 test	2 x 8 ml	2 x 8 ml	4 x 7 ml	2 ml	3 x 8 ml	3 x 8 ml	3 x 8 ml	1 x 8.5 ml	-
QD551-YCXEN **NanoVip™** (Open System)	100 test	2 x 8 ml	2 x 8 ml	4 x 7 ml	2 ml	3 x 8 ml	3 x 8 ml	3 x 8 ml	1 x 8.5 ml	-
QD552-YAXEN **NanoVip™ 300**	100 test	1X20ml	1X20ml	1X20ml	2 ml	1X20ml	1X20ml	1 X 20ml	1X 12ml	2 X 20ml

Detection Systems - Super Sensitive One-Step Polymer-HRP (For mouse & rabbit antibodies)

SKU	Size	Polymer-HRP	DAB buffer	DAB Chromo.	Peroxide block	Power block	Hematox	EZ-AR Eleg. 1,2	Negative ctrl IgG
QD600-60KEN	60 test	6 mL	10 mL	1mL	3x6mL	3x6mL	3x6mL		1X3 mL 1X3 mL
QD620-YIKE	500 test	50 mL	50 mL	5 mL	-	-	-	-	-
QD630-XAKE	1000 test	100 mL	100 mL	10 mL	-	-	-	-	-
QD610-YAXE - i6000™	200 test	16 mL	4x11 mL	4 mL	3x16 mL	3x16 mL	3x16 mL	-	-
QD610-YADE Xmatrx®-Elite	200 test	16 mL	4x11 mL + 5 barcode labeled vials	7 mL	3x16 mL	3x16 mL	3x16 mL	3x16 mL	-
QD610-YADE Xmatrx®-Infinity	200 test	16 mL	4x11 mL + 5 barcode labeled vials	7 mL	3x16 mL	3x16 mL	3x16 mL	3x16 mL	-
QD611-YADE (Closed System)	100 test	2 x 8 ml	4 x 7 ml	1 x 2 ml	3 x 8 ml	3 x 8 ml	3 x 8 ml	1 x 8.5 ml	-
QD611-YAXE (Open System)	100 test	2 x 8 ml	4 x 7 ml	1 x 2 ml	3 x 8 ml	3 x 8 ml	3 x 8 ml	1 x 8.5 ml	-
QD612-YAXEN	100 test	1X 20ml	1X 20ml	1X 2ml	1X 20ml	1X 20ml	1X 20ml	1X 12ml Each	-

Super Sensitive Mouse on Mouse (M.O.M.) 1-step Poly HRP kit

SKU	Pack Size	Peroxide Block	2.5% Normal Horse Serum	M.O.M. Mouse IgG Blocking Reagent	M.O.M. Mouse Poly HRP	Liquid DAB Chromogen	DAB Buffer	Counterstain Hematoxylin (Mayer's)	Empty Mixing Vial
ZP200-60K Manual	60 tests	(1 x 6ml)	(1 x 6ml)	(1 x 6ml)	(1 x 6ml)	(1 x 0.5ml)	(1 x 10ml)	(1 x 6ml)	1 no
ZP200-YDK Manual	250 tests	NA	(1 x 25ml)	(1 x 25ml)	(1 x 25ml)	NA	NA	NA	NA
ZP200-XAK Manual	1000 tests	NA	NA	NA	(1 x 100ml)	NA	NA	NA	NA

For Xmatrx® Automation (Elite - Barcode labeled vials)

IHC Detection Systems - Links / Labels items-Manual

Product	5 mL (Conc.)	6 mL (RTU)	25 mL (RTU)	50 mL (RTU)	100 mL (RTU)
SS AP label	HK321-UK	HK331-5K	NA	HK331-9K	NA
SS Goat Link	N/A	HK337-5G	NA	N/A	NA
SS HRP label	HK320-UK	HK330-5K	NA	HK330-9K	NA
SS Mouse Link	HK325-UM	HK335-5M	NA	HK335-9M	NA
SS Multi Link (ANTI-mouse & rabbit)	N/A	HK340-5K	NA	HK340-9K	NA
SS Rabbit Link	HK326-UR	HK336-5R	NA	HK336-9R	NA
SS Rat Link	N/A	HK338-5T	NA	N/A	NA
Conc. Multi Link	HK268-UK	N/A	NA	N/A	NA
SS Super Enhancer	NA	NA	NA	HK518-50K	HK518-YAK
SS Poly HRP	NA	NA	NA	HK519-50K	HK519-YAK
SS One Step Poly HRP	NA	NA	NA	HK595-50K	HK595-YAK
Anti-Mouse One Step Poly HRP	NA	HK943-06K	HK943-25K	NA	NA
Anti-Rabbit One Step Poly HRP	NA	HK945-06K	HK945-25K	NA	NA
1-STEP POLYMER-HRP REAGENT	NA	NA	NA	HK595-50K	HK595-YAK
SUPER ENHANCER REAGENT	NA	NA	NA	HK518-50K	HK518-YAK
POLYMER HRP REAGENT	NA	NA	NA	HK519-50K	HK519-YAK

Substrates and Chromogens

BioGenex offers complete Substrate Packs for immunohistochemical staining with alkaline phosphatase and peroxidase labels. The kits are designed to reduce substrate preparation time and minimize exposure to chemical hazards. The chart below summarizes the substrates offered, indicating enzyme and standard mounting media compatibility.

Features & Benefits:

- High Resolution AEC and Liquid DAB
- Rapid Development Time
- Ready-to-Use Solutions
- Long-Term Stability

The chart below summarizes the compatibility of mounting medium, chromogens and counterstains

Chromogen	Stain Color	Enzyme used	Solubility in Alcohol/Xylene	Compatible with Hematoxylin	Compatible Mounting Media
AEC	Brick Red	HRP	Yes	Yes	Aqueous or Super Mount
DAB	Brown	HRP	No	Yes	Aqueous, Super Mount or Xmount
Elegance Red	Red	AP	No	Yes	Aqueous, Super Mount or Xmount
Fast Red	Red	AP	Yes	Yes	Aqueous or Super Mount
New Fuchsin	Red	AP	Yes	Yes	Aqueous or Super Mount

IHC - Substrates and Chromogens Packs – Manual & Open system**

Product Name	60 Tests*	250 Tests*	500 Tests/Large*
Fast Red	NA	NA	HK182-5KE
Elegance Red	NA	NA	HK144-5KE
New Fuchsin (400 slides)	NA	NA	HK183-5KE
Two Component DAB (1000 slides)	NA	NA	HK542-XAKE
AEC	NA	HK092-5KE	N/A
AEC One Step Sol.	HK139-06K	NA	HK139-50K

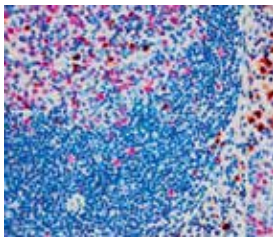
* 100 µl/test of prepared reagent
** Reagent vials for Xmatrx®& i6000™ open systems need to be purchased separately

Multi-Staining

Super Sensitive™ Antibody Cocktails

- Pre-mixed and pre-optimized antibody cocktails
- More patient data per slide – testing multiple protein biomarkers simultaneously
- Easy and fast – staining with a 4-step protocol
- Saving costs by maximizing resources
- Excellent sensitivity and high antibody efficiency

Ki67 + Lambda

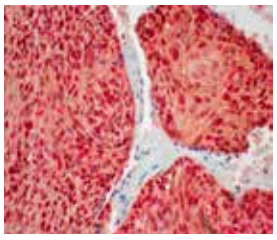


Tonsil stained with anti-Ki67 + Lambda

Source & Clone:	Mouse K-2 + Rabbit polyclonal
Isotype:	IgG + Polyclonal
Localization:	Nucleus, Cytoplasm
Pre-treatment:	AR Citra Plus/ EZ-AR 1/ EZ-AR 2
Manual/i6000:	HK081-5K
Xmatrx:	HX031-YCD/HX032-YCD

Ready-to-Use (Manual):	AC562-5M
Ready-to-Use (Automated) i6000™:	AC562-10M
Xmatrx®:	AC562-YCD, AC562-50D
Recommended Positive Control:	Tonsil

Ki67 is a nuclear protein present in cells at all phases of the cell cycle except G0. As such, Ki67 is a useful marker to identify the proliferation activity of cell populations. The staining of this activity, designated as the Ki67 labeling index, has shown to be clinically significant as a prognosis marker for breast, colorectal, skin cancer, and various lymphomas. The light chain is a polypeptide subunit of immunoglobulin expressed by B-cells. These B-cells are restricted to one of two subtypes of light chain, lambda or kappa. As a result, the light chain is a useful marker for lymphomas characterized as a monoclonal proliferation of B-cells. The Ki67 and lambda light chain cocktail is useful in evaluating cell proliferation of lambda light chain positive tumors.



Cervical carcinoma stained with Anti-p16+Ki67

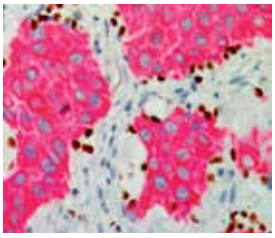
Source & Clone:	Mouse G175-405 + Rabbit EPR3611
Isotype:	IgG + IgG
Localization:	Nucleus and/or Cytoplasm, Nucleus
Pre-treatment:	AR Citra Plus
Manual/i6000:	HK080-5K
Xmatrx:	HX032-YCD

Ready-to-Use (Manual):	AC601-5M
Ready-to-Use (Automated) i6000™:	AC601-10M
Xmatrx®:	AC601-YCD, AC601-50D
Recommended Positive Control:	FG-601C
Recommended Barrier Control:	FB-601C

RUO

p16/INK4A is a tumor-suppressor protein. The related genetic and epigenetic abnormalities in genes controlling the G1 checkpoint can lead to both escape from senescence and cancer formation. Ki-67 is a nuclear protein that is associated with and may be necessary for cellular proliferation. p16/Ki-67 immunostains are helpful to assess cervical biopsies for HPV-associated lesions. For research use only, not for use in diagnostic procedures.

TTF-1 + GCDFP-15

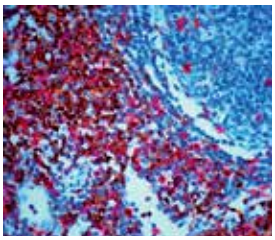


Source & Clone:	Mouse BGX-397A + Rabbit EP1582Y
Isotype:	IgG1 Kappa + IgG
Localization:	Nucleus, Cytoplasm
Pre-treatment:	AR Citra/EZ-AR 1/EZ-AR 2
Manual/i6000:	HK080-5K
Xmatrx:	HX031-YCD/HX032-YCD

Ready-to-Use (Manual):	AC604-5M
Ready-to-Use (Automated) i6000™:	AC604-10M
Xmatrx®:	AC604-YCD, AC604-50D
Recommended Positive Control:	Lung squamous carcinoma

Thyroid transcription factor-1 (TTF-1) is a sensitive marker for the diagnosis of primary pulmonary adenocarcinoma, and differentiation between poorly differentiated squamous cell carcinoma and small cell carcinoma and adenocarcinoma. Gross cystic disease fluid protein (GCDFP-15) is currently used as an immunohistochemical marker of breast cancer. TTF-1/GCDFP-15 immunohistochemical profile in lung tumors is highly suggestive of metastatic carcinoma of the breast. In distinguishing metastatic breast carcinoma and adenocarcinoma of the lung, the cytoplasmic staining would indicate breast carcinoma and nuclear staining would indicate lung or thyroid carcinoma.

CD4 + CD8



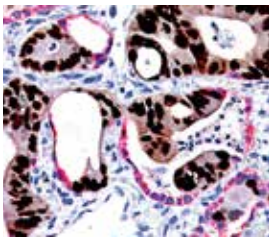
Tonsil stained with anti-CD4 + CD8

Source & Clone:	Mouse BC/1F6+Rabbit SP16
Isotype:	IgG1 + Rabbit IgG
Localization:	Membrane
Pre-treatment:	AR-10/EZ-AR 1/EZ-AR 2
Manual/i6000:	HK058-5K
Xmatrx:	HX031-YCD/HX032-YCD

Ready-to-Use (Manual):	AC595-5M
Ready-to-Use (Automated) i6000™:	AC595-10M
Xmatrx®:	AC595-YCD
Recommended Positive Control:	Tonsil or mycois fungoides

CD4 is a single chain transmembrane glycoprotein expressed on the surface of T helper cells and regulatory T-cells. CD4 is a co-receptor that assists the T-cell receptor (TCR) with an antigen-presenting cell. CD4 interacts directly with MHC class II molecules on the surface of the antigen-presenting cell. CD8 is a transmembrane glycoprotein that serves as a co-receptor for the T-cell receptor (TCR). The CD8 co-receptor is predominantly expressed on the surface of cytotoxic T-cells, but can also be found on natural killer cells and dendritic cells. CD8 binds to a major histocompatibility complex (MHC) molecule, but is specific for the class I MHC protein. CD4-CD8 double staining reveals the distribution of T-lymphocyte subsets, for example in HIV infection, infiltrating cells in graft rejection and lymphoma. Limited availability - Please inquire.

CDX-2 + CK7



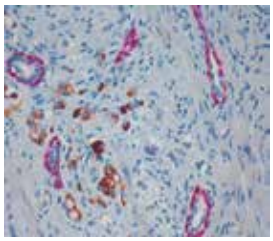
CDX2 and CK7 stained in colon cancer metastasized into lung tissue

Source & Clone:	Mouse CDX2-88 + Rabbit BC1
Isotype:	IgG1+ Rabbit IgG
Localization:	Nucleus, Cytoplasm
Pre-treatment:	AR Citra Plus/ EZ-AR 1/ EZ-AR 2
Manual/i6000:	HK081-5K
Xmatrx:	HX031-YCD/HX032-YCD

Ready-to-Use (Manual):	AC596-5M
Ready-to-Use (Automated) i6000™:	AC596-10M
Xmatrx®:	AC596-YCD
Recommended Positive Control:	Colon, breast and lung cancer

CDX-2, a member of the caudal-related homeobox family, is an intestine-specific transcription factor that regulates both proliferation and differentiation in intestinal epithelial cells. It plays an important role in triggering cells toward the phenotype of differentiated villus enterocytes as well as in the maintenance of the phenotype. CDX-2 is used as a marker for gastrointestinal differentiation, especially colorectal. Cytokeratin 7 is a 54kD intermediate filament protein found in a variety of glandularepithelia. Cytokeratin 7 has been found in columnar and glandular epithelium of the lung, cervix, breast, bile ducts and larger collecting ducts of the kidney. CDX-2 and CK7 combination will help to distinguish the tumor origin from gastrointestinal, especially colorectal to adenocarcinomas of lung, breast, endometrioid tumors, and transitional cell carcinoma of the bladder. Limited availability - Please inquire.

PIN4 (p63 + CK HMW + p504S)



Prostate carcinoma. stained with anti-PIN4

Source & Clone:	Mouse 4A4 + Mouse 34ßE12 + Rabbit 13H4
Isotype:	IgG1
Localization:	p63 Nucleus, CK HMW and p504S Cytoplasm
Pre-treatment:	AR Citra Plus/EZ-AR 2
Manual/i6000:	HK081-5K
Xmatrx:	HX032-YCD

Ready-to-Use (Manual):	AM448-5ME
Ready-to-Use (Automated) i6000™:	AM448-10ME
Xmatrx®:	AX448-YCDE, AX448-50DE
Recommended Positive Control:	Prostate adenocarcinoma
	MU448-UCE, MU448-UCE

RUO

This antibody cocktail recognizes Prostate Intraepithelial Neoplasia (PIN) in the tissues stained by immunohistochemical techniques. A cocktail of these three antibodies might allow simultaneous demonstration of P504S, HMW CK and p63 using a single immunostain. The combination of P504S + HMW CK + p63 (PIN4 Cocktail) may be extremely useful for studying prostatic intraepithelial neoplasia, especially in difficult cases and in cases with limited tissue. For Research Use only, not for use in diagnostic procedures. For research use only. Not for use in diagnostic procedures.

Double Staining

BioGenex Double Staining IHC products include pre-optimized antibody cocktails and Super Sensitive multiple detection systems, enabling simultaneous testing of multiple antigens on single slide with a fast and easy protocol, assisting rapid and accurate diagnosis.

Super Sensitive™(SS) Double Staining Polymer Detection System

This double staining system is designed with novel polymer technology for fast and easy IHC staining of multiple antigens on a single slide. This system is pre-optimized for human tissues with superior sensitivity and specificity to produce precise and reliable results that allow easy interpretation and accurate diagnosis.

Features & Benefits:

- Pre-mixed and pre-optimized polymer cocktails
- Easy and fast – staining with a 4-step protocol
- Reduced costs by maximizing resources
- Clean and intense stain without endogenous biotin background
- Excellent sensitivity for weakly expressed antigens
- Excellent cell penetration ability for intense nuclear, cytoplasmic and membrane antigen staining
- Enabling higher dilution of antibodies for reduced cost
- Available in barcode labeled vials for Xmatrx® automation or in drop bottles for easy to use manual staining

Product Name	SKU	Antigen Retrieval	Peroxide Block	Power Block	Mouse Negative Control	Rabbit Negative Control	Anti-Rabbit AP / AntiMouse HRP	Anti-Mouse AP/ AntiRabbit HRP	DAB Substrate	DAB Chromogen	Red Reagents A, B, and C	Red Buffer D	Hematoxylin
XViz™ Double Stain Detection Kit I	QS200-YADE 100 slides Xmatrx-Elite	7 ml each	2 x 10 ml	2x 10 ml	7 ml	7 ml	-	2X7 ml	2 X15ml	2 ml	1x0.8ml each	2 x 15 ml	2 x 10 ml
Super Sensitive™ Double Stain Polymer Detection Kit I/ Large Volume	QS210-YIKE 500 slides	-	-	-	-	-	-	50 ml	-	-	-	-	-
XViz™ Double Stain Polymer Detection Kit II	QS400-YADE 100 slides Xmatrx-Elite	7 ml each	2 x 10 ml	2 x 10 ml	7 ml	7 ml	2 X 7 ml	-	2 X15ml	2 ml	1x0.8ml each	2 x 15 ml	2 x 10 ml
Super Sensitive™ Double Stain Polymer Detection Kit II	QS400-60KE 60 slides	-	2 x ml	2 x 6 ml	6 ml	6 ml	6 ml	-	10 ml	1 ml	1x0.4ml each	1X15 ml	-
Super Sensitive™ Double Stain Polymer Detection Kit II/ Large Volume	QS410- YIKE 500 slides	-	-	-	-	-	50 ml	-	-	-	-	-	-

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DAB	Brown	HRP	No	Yes	Aqueous, Super Mount or Xmount
Elegance Red	Red	AP	No	Yes	Aqueous, Super Mount or Xmount
Fast Red	Red	AP	Yes	Yes	Aqueous or Super Mount
New Fuchsin	Red	AP	Yes	Yes	Aqueous or Super Mount

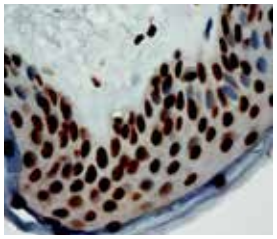
ISH Probes & Detection Systems

In situ Hybridization Probes

BioGenex offers fluorescein-labeled oligonucleotide probes for the detection of RNA or DNA by *in situ* Hybridization (ISH). These probes allow the localization of specific nucleic acid sequences within cells from formalin-fixed, paraffin-embedded tissue sections. When used with the BioGenex ISH Detection systems, these probes offer reliable, highly sensitive and easy-to-perform DNA and RNA assays.

IVD Products: Unless specified otherwise, all ISH Probes listed in this section are for In Vitro Diagnostics Use.

Alu II Probe

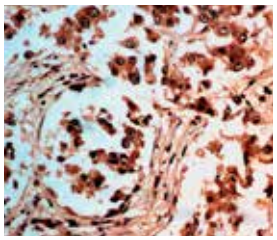


Alu sequence detected in FFPE tissue stained with DAB

Ready-to-Use (Manual): PR026-100E
Specificity: Alu II DNA
Ready-to-Use (Automated):
Xmatrx: PR026-YADE

Alu, an important group of widely distributed sequences repeated in the human genome, has been widely used in *in situ* hybridization technique.

Beta-Actin

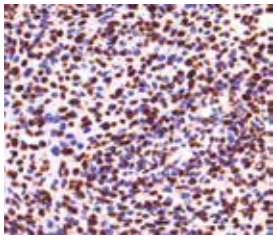


Beta actin mRNA staining of breast cancer tissue

Ready-to-Use (Manual): PR1055-100E
Specificity: Beta-Actin RNA
Ready-to-Use Automated):
Xmatrx: PR1055-YADE

Actins are highly conserved proteins that participate in cell motility as well as cell structure and integrity. In normal cells, beta-actin mRNA is localized in cell protrusions where actin is actively polymerized.

CerviPro HPV 14 DNA Probe

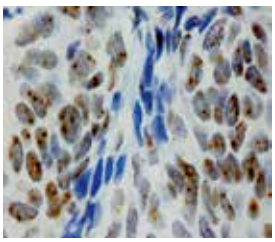


HPV 14 HR genotype in Ca Cervix tissue stained with DAB

Ready-to-use (Manual): PR251-100E
Specificity: HPV 14 genotypes
Ready-to-Use (Automated):
Xmatrx: PR251-YADE

The HPV 14 probe has been designed to specifically recognize regions of the L1 and E6/E7 open reading frames (ORFs) of human papillomavirus (HPV) 14 genotypes (HPV 16,18,31,33,35,39,45,51,52,56,58,59,66,68)in paraffin embedded human tissues or cytopathology specimens/cervical scraps.

CerviPro HPV Type 16/18 DNA Probe

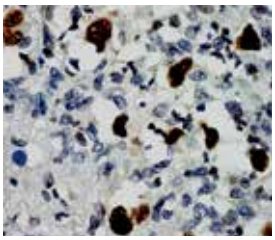


HPV16/18 in Ca Cervix stained with DAB

Ready-to-Use (Manual): PR250-100E
Specificity: HPV viral DNA sequences
Ready-to-Use (Automated):
Xmatrx: PR250-YADE

The CerviPro HPV Type 16/18 DNA probe has been designed to recognize regions of the E1, E6, L1, and L2 open reading frames (ORFs) of human papillomavirus (HPV) genotypes in paraffin embedded human tissues or cytopathology specimens/cervical scraps.

EBV-Encoded RNA (EBER) Probe

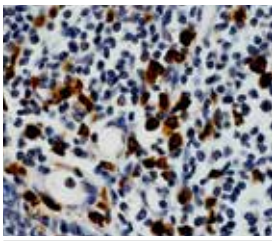


Epstein-Barr early RNA (EBER) stained with DAB

Ready-to-Use (Manual): PR205-100E
Specificity: EBV-encoded RNA
Ready-to-Use Automated):
Xmatrx: PR205-YADE

Epstein-Barr virus-encoded RNA, EBER, is present in cells latently infected with Epstein-Barr virus (EBV).

Kappa Probe



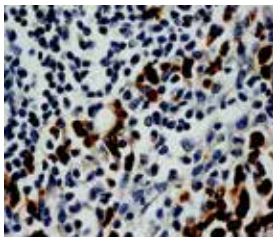
Human immunoglobulin kappa light chain mRNA in tonsil stained with DAB

Ready-to-Use (Manual): PR214-100E
Specificity: Kappa light chain mRNA
Ready-to-Use (Automated):
Xmatrx: PR214-YADE

The light chains of immunoglobulin molecules have two antigenic types: kappa and lambda. A given immunoglobulin molecule contains two identical light chains, either kappa or lambda. Therefore, the clonal nature of any immunoglobulin producing cell population can be determined by the light chain structure of the immunoglobulin that the cell produces.

*To be released soon

Lambda Probe

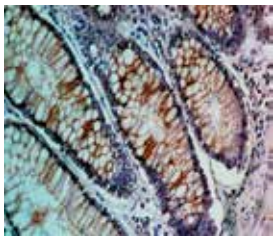


Ready-to-Use (Manual): PR215-100E
Specificity: Lambda light chain mRNA
Ready-to-Use (Automated):
Xmatrx: PR215-YADE

Human immunoglobulin lambda light chain mRNA in tonsil stained with DAB

The light chains of immunoglobulin molecules have two antigenic types: kappa and lambda. A given immunoglobulin molecule contains two identical light chains, either kappa or lambda. Therefore, the clonal nature of any immunoglobulin producing cell population can be determined by the light chain structure of the immunoglobulin that the cell produces.

Oligo d (T) Probe

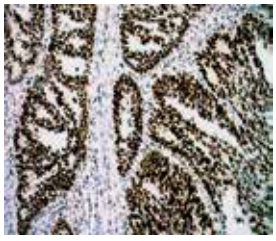


Ready-to-Use (Manual): PR217-100E
Specificity: mRNA
Ready-to-Use (Automated):
Xmatrx: PR217-YADE

Preservation of oligo d (T) mRNA in FFPE tissue stained with DAB

In all living cells, the expression of genetic information involves transcription of RNA molecules. The initial transcripts named heterogeneous nuclear RNA (hnRNA) are processed into mature messenger RNA (mRNA) by removing non-coding intron sequences and adding the 5'-methyl cap and a 3'-tail of approximately 200 adenylyl residues (poly (A)). In general, mRNA are conserved in routine formalin-fixed, paraffin-embedded tissues which have been fixed promptly. However, mRNA is not stable and may be destroyed during tissue processing of a routine formalin-fixed, paraffin-embedded tissue specimen. *in situ* hybridization with an oligo-d (T) probe is commonly used to assess the preservation of mRNA in a formalin-fixed, paraffin embedded tissue specimen.

Retinoblastoma (RB) Probe

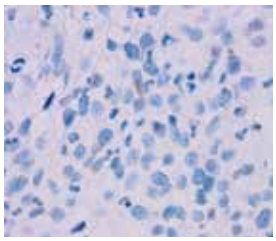


Ready-to-Use (Manual): PR225-100E
Specificity: retinoblastoma tumor suppressor gene
Ready-to-Use (Automated):
Xmatrx: PR225-YADE

Retinoblastoma mRNA in Adenocarcinoma tissue stained with DAB

The retinoblastoma tumor suppressor gene, RB, encodes a protein of 110 KD that plays an important role in cell growth regulation. Alterations in Retinoblastoma (RB) mRNA expression have been reported in many human tumor types including lung cancer, osteosarcomas, leukemias, prostate cancer and bladder cancer. Increased expression of RB1 mRNA has been reported for many human colon tumor tissues and human colorectal cancer cell lines and Breast cancer.

Scramble probe

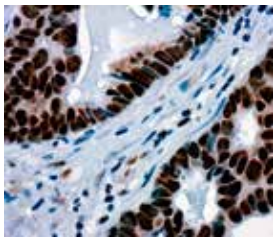


Ready-to-Use (Manual): PR032-100E
Specificity: Negative control for ISH assays

Negative staining of scrambled probe in FFPE tissue

The scramble probe sequence does not share homology with human mRNA or miRNA sequences available in the miR Base database. Scramble probe is used as a negative control during miRNA and ISH.

U6 probe



Ready-to-Use (Manual) PR031-100E
Specificity human U6 small nuclear RNA

U6 detected in FFPE tissue stained with DAB

U6 snRNA is the non-coding small nuclear RNA (snRNA) component of U6 snRNP (small nuclearribonucleoprotein). The U6 snRNA sequence is highly conserved and the function of the U6 snRNA has remained crucial and unchanged through evolution. The U6 cellular transcript is available in abundance with intranuclear distribution in cell/tissue. The U6 probe is designed to bind to human U6 small nuclear RNA.

ISH Probes

Probes for Automation are packaged with barcode labeled vials for staining up to 25 slides.
For a complete list of avaliable ISH probes refer to the table below.

Product Name	Pack Size	Intended Use	Cat. No. (Manual)	Cat. No. (Automated)
Alu II Probe	25 slides	Alu II sequences	PR026-100E	PR026-YADE
Beta Actin	25 slides	Initial standard	PR1055-100E	PR1055-YADE
CerviPro HPV 14	25 slides	L1 and E6/E7 ORFs of HPV14	PR251-100E	PR251-YADE
CerviPro HPV Type 16/18	25 slides	E1, E6, L1, and L2 open reading frames (ORFs) of HPV	PR250-100E	PR250-YADE
EBER Probe	25 slides	EBV-encoded RNA	PR205-100E	PR205-YADE
Kappa Probe	25 slides	Kappa light chain mRNA	PR214-100E	PR214-YADE
Lamda Probe	25 slides	Lambda light chain mRNA	PR215-100E	PR215-YADE
Oligo d (T) Probe	25 slides	mRNA	PR217-100E	PR217-YADE
Retinoblastoma (RB) Probe	25 slides	Retinoblastoma tumor suppressor gene	PR225-100E	PR225-YADE
ABL1	25 slides	v-abl Abelson murine leukemia viral oncogene homolog 1	PR261-100E	PR261-YADE
BCL2	25 slides	B-cell CLL/lymphoma 2	PR262-100E	PR262-YADE
BRAF	25 slides	v-raf murine sarcoma viral oncogene homolog B1	PR263-100E	PR263-YADE
JAK2	25 slides	Janus Kinase 2	PR264-100E	PR264-YADE
MYC	25 slides	v-myc myelocytomatosis viral oncogene homolog (avian)	PR265-100E	PR265-YADE
TNF	25 slides	tumor necrosis factor (TNF superfamily, member 2)	PR266-100E	PR266-YADE
TTF1	25 slides	transcription termination factor, RNA polymerase I	PR267-100E	PR267-YADE
ALK	25 slides	anaplastic lymphoma kinase (Ki-1)	PR268-100E	PR268-YADE
BRCA2	25 slides	breast cancer 2, early onset	PR269-100E	PR269-YADE
CD68	25 slides	CD68 antigen	PR270-100E	PR270-YADE
PCNA	25 slides	proliferating cell nuclear antigen	PR271-100E	PR271-YADE
MPO	25 slides	Myeloperoxidase	PR272-100E	PR272-YADE
MRC1	25 slides	Homo sapiens mannose receptor, C type 1	PR273-100E	PR273-YADE
ARG1	25 slides	Homo sapiens arginase 1	PR274-100E	PR274-YADE
ARG2	25 slides	arginase, type II	PR275-100E	PR275-YADE
COL1A1	25 slides	collagen, type 1, alpha 1	PR276-100E	PR276-YADE
SERPINE1	25 slides	Serine (or systeine) proteinase inhibitor, clade E	PR277-100E	PR277-YADE

* To be released soon

MicroRNA Probes

MicroRNAs (miRNAs) are endogenous, non-coding RNAs known to regulate gene expression by translational repression or RNA cleavage. Since miRNA has been observed to deregulate during progression of different cancer stages from normal to malignant and metastasis, the expression profile as a result of this deregulation can be exploited as a potential biomarker for cancer characterization.

IVD Products: Unless specified otherwise, all miRNA Probes listed in this section are for In Vitro Diagnostics Use.

BioGenex MicroRNA Probes

Automated and manual protocols and for standardized manual ISH staining

- Optimized for automated ISH staining by Xmatrx® ELITE
- Ready-to-Use reagents for FFPE tissues

Highly Specific and Sensitive Probes

- Proprietary technology for clean intense stains
- *in situ* context of tissue morphology

Examples of BioGenex miRNA staining

For additional images and information, please visit us at www.biogenex.com or contact us to request a BioGenex miRNA catalog

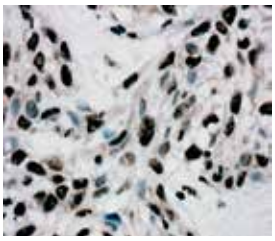
Hsa-miR-1

Hsa-miR-1 detected in FFPE tissue stained with DAB

Ready-to-Use (Manual):	HM001-100E
Specificity:	miR-1

The Hsa-miR-1probe has been designed from mature human miR-1 sequence. This fluorescenated probe is provided in a hybridization buffer for localization of miRNA in FFPE tissue by *in situ* hybridization.

Hsa-miR-222

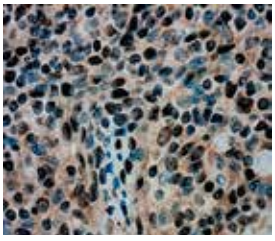


Hsa-miR 222 detected in FFPE tissue stained with DAB

Ready-to-Use (Manual):	HM222-100E
Specificity:	miR-222

The Hsa-miR-222 probe has been designed from mature human miR-222 sequence. This fluorescenated probe is provided in a hybridization buffer for localization of miRNA in FFPE tissue by *in situ* hybridization.

Hsa-miR-155

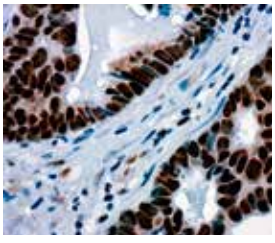


Has-miR 155 detected in FFPE tissue stained with DAB

Ready-to-Use (Manual):	HM155-100E
Specificity:	miR-155

The Hsa-miR-155 probe has been designed from mature human miR-155 sequence. This fluorescenated probe is provided in a hybridization buffer for localization of miRNA in FFPE tissue by *in situ* hybridization.

U6 probe



U6 detected in FFPE tissue stained with DAB

Ready-to-Use (Manual)	PR031-100E
Specificity	human U6 small nuclear RNA

U6 snRNA is the non-coding small nuclear RNA (snRNA) component of U6 snRNP (small nuclear ribonucleoprotein). The U6 snRNA sequence is highly conserved and the function of the U6 snRNA has remained crucial and unchanged through evolution. The U6 cellular transcript is available in abundance with intranuclear distribution in cell/tissue. The U6 probe is designed to bind to human U6 small nuclear RNA.

miRNA Probes

Product Name	Cat. No.
Hsa-miR-7a	HM007A-100E
Hsa-miR-Let-7c	HM007C-100E
Hsa-miR-7e	HM007E-100E
Hsa-miR-9	HM009-100E
Hsa-miR-10b	HM010B-100E
Hsa-miR-15a	HM015A-100E
Hsa-miR-17	HM017-100E
Hsa-miR-17-3p	HM017-3P-100E
Hsa-miR-18a	HM018A-100E
Hsa-miR-19b-3p	HM019B-3P-100E
Hsa-miR-21	HM021-100E
Hsa-miR-23b	HM023B-100E
Hsa-miR-27A	HM027A-100E
Hsa-miR-27b	HM027B-100E
Hsa-miR-29C	HM029C-100E
Hsa-miR-30C	HM030C-100E
Hsa-miR-30E	HM030E-100E
Hsa-miR-96	HM096-100E
Hsa-miR-101-3p	HM101-3P-100E
Hsa-miR-106a	HM106A-100E
Hsa-miR-125b	HM125B-100E
Hsa-miR-126	HM126-100E
Hsa-miR-127-3P	HM127-3P-100E
Hsa-miR-1285	HM1285-100E
Hsa-miR-133A	HM133A-100E
Hsa-miR-133B	HM133B-100E
Hsa-miR-135A	HM135A-100E
Hsa-miR-135B	HM135B-100E
Hsa-miR-141	HM141-100E
Hsa-miR-143	HM143-100E
Hsa-miR-144	HM144-100E
Hsa-miR-146B	HM146B-100E
Hsa-miR-147b	HM147B-100E
Hsa-miR-151a-3p	HM151A-3p-100E
Hsa-miR-152	HM152-100E
Hsa-miR-181C	HM181C-100E
Hsa-miR-182	HM182-100E
Hsa-miR-187	HM187-100E
Hsa-miR-191	HM191-100E
Hsa-miR-194	HM194-100E
Hsa-miR-196a	HM196A-100E
Hsa-miR-199a	HM199A-100E
Hsa-miR-200a	HM200A-100E
Hsa-miR-200b	HM200B-100E
Hsa-miR-200C	HM200C-100E
Hsa-miR-203A	HM203A-3P-100E
Hsa-miR-204	HM204-100E
Hsa-miR-205	HM205-100E

Product Name	Cat. No.
Hsa-miR-215	HM215-100E
Hsa-miR-216a	HM216A-100E
Hsa-miR-218	HM218-100E
Hsa-miR-221-3p	HM221-3P-100E
Hsa-miR-331-3p	HM331-3P-100E
Hsa-miR-335	HM335-100E
Hsa-miR-375	HM375-100E
Hsa-miR-378A	HM378A-100E
Hsa-miR-383	HM383-100E
Hsa-miR-412	HM412-100E
Hsa-miR-422A	HM422A-100E
Hsa-miR-423-3p	HM423-3P-100E
Hsa-miR-483	HM483-100E
Hsa-miR-505	HM505-100E
Hsa-miR-615	HM615-100E
Hsa-miR-622	HM622-100E
Hsa-miR-629	HM629-100E
Hsa-miR-641	HM641-100E
Hsa-miR-648	HM648-100E
Hsa-miR-663A	HM663A-100E
Hsa-miR-708	HM708-100E
Hsa-miR-1	HM001-100E
Hsa-miR-let-7b	HM007B-100E
Hsa-miR-let-7d	HM007D-100E
Hsa-miR-let-7g	HM007G-100E
Hsa-miR-15B	HM015B-100E
Hsa-miR-19a	HM019A-100E
Hsa-miR-20A	HM020A-100E
Hsa-miR-21-3p	HM021-3P-100E
Hsa-miR-22	HM022-100E
Hsa-miR-24-3P	HM024-3P-100E
Hsa-miR-26A	HM026A-100E
Hsa-miR-28-3P	HM028-3P-100E
Hsa-miR-28-5P	HM028-5P-100E
Hsa-miR-30B	HM030B-100E
Hsa-miR-31	HM031-100E
Hsa-miR-34A	HM034A-100E
Hsa-miR-650	HM0650-100E
Hsa-miR-92A	HM092A-100E
Hsa-miR-95	HM095-100E
Hsa-miR-98	HM098-100E
Hsa-miR-99A	HM099A-100E
Hsa-miR-99B	HM099B-100E
Hsa-miR-100	HM100E-100E
Hsa-miR-107	HM107-100E
Hsa-miR-1181	HM1181-100E
Hsa-miR-122	HM122-100E
Hsa-miR-124	HM124-100E

Product Name	Cat. No.
Hsa-miR-1247	HM1247-100E
Hsa-miR-125A	HM125A-100E
Hsa-miR-138	HM138-100E
Hsa-miR-142-3P	HM142-3P-100E
Hsa-miR-146a	HM146A-100E
Hsa-miR-148A	HM148A-100E
Hsa-miR-148B	HM148B-100E
Hsa-miR-149	HM149-100E
Hsa-miR-150	HM150-100E
Hsa-miR-153	HM153-100E
Hsa-miR-155	HM155-100E
Hsa-miR-181A	HM181A-100E
Hsa-miR-181B	HM181B-100E
Hsa-miR-1826	HM1826-100E
Hsa-miR-192	HM192-100E
Hsa-miR-195	HM195-100E
Hsa-miR-206	HM206-100E
Hsa-miR-210	HM210-100E
Hsa-miR-212	HM212-100E
Hsa-miR-214	HM214-100E
Hsa-miR-222	HM222-100E
Hsa-miR-224	HM224-100E
Hsa-miR-297	HM297-100E
Hsa-miR-328	HM328-100E
Hsa-miR-329	HM329-100E
Hsa-miR-361	HM361-100E
Hsa-miR-362	HM362-100E
Hsa-miR-365A-3P	HM365A-3P-100E
Hsa-miR-373	HM373-100E
Hsa-miR-409-3P	HM409-3P-100E
Hsa-miR-410	HM410-100E
Hsa-miR-424	HM424-100E
Hsa-miR-429	HM429-100E
Hsa-miR-449A	HM449A-100E
Hsa-miR-451	HM451-100E
Hsa-miR-486	HM486-100E
Hsa-miR-494	HM494-100E
Hsa-miR-497	HM497-100E
Hsa-miR-544	HM544-100E
Hsa-miR-545-5P	HM545-5P-100E
Hsa-miR-590	HM590-100E
Hsa-miR-610	HM610-100E
Hsa-miR-625	HM625-100E
Hsa-miR-627	HM627-100E
Hsa-miR-628	HM628-100E
Hsa-miR-630	HM630-100E
Hsa-miR-718	HM718-100E
Hsa-miR-802	HM802-100E

miRNA Probes

Product Name	Cat. No.
Hsa-miR-9500	HM9500-100E
Hsa-miR-16-5p	Inquire
Hsa-miR-451a	Inquire
Hsa-409-5p	Inquire
Hsa-miR-544a	Inquire
Hsa-miR-26b	HM026B-100
Hsa-miR-122	HM122-100
Hsa-miR-183-3p	HM183-3P-100
Hsa-miR-198	HM198-100
Hsa-miR-511	HM511-100
Hsa-miR-337	HM337-100E
Hsa-miR-486-3p	HM486-3P-100
Hsa-miR-614	HM614-100
Hsa-miR-216b	HM216B-100
Hsa-miR-23a	HM23A-100E
Hsa-miR-24-2-5p	Inquire
Hsa-miR-6075	Inquire
Hsa-miR-7843	Inquire
Hsa-miR-802	HM802-100E
Hsa-miR-101	HM802-100
Hsa-miR-138	HM138-100
Hsa-miR-142	HM142-100
Hsa-miR-193a-3p	HM193A-3P-100
Hsa-miR-197	HM197-100
Hsa-miR-217	HM217-100
Hsa-miR-223	HM223-100
Hsa-miR-140	HM140-100
Hsa-miR-16	HM016-100E
Hsa-miR-186	HM186-100
Hsa-miR-193b	HM193B-100
Hsa-miR-25	HM025-100
Hsa-miR-338-3p	HM338-3P-100
Hsa-miR-1297	HM1297-100
Hsa-miR-381	HM381-100
Hsa-miR-1258	HM1258-100
Hsa-miR-129	HM129-100
Hsa-miR-132	HM132-100
Hsa-miR-185	HM185-100
Hsa-miR-34c	HM34C-100E
Hsa-miR-7515	Inquire
Hsa-miR-136	HM136-100
Hsa-miR-29a	HM29A-100E
Hsa-miR-300	HM300-100

Product Name	Cat. No.
Hsa-miR-296	HM296-100
Hsa-miR-339	HM339-5P-100
Hsa-miR-374a	HM374A-100
Hsa-miR-379	HM379-100
Hsa-miR-425	HM425-100
Hsa-miR-450b-3p	HM450B-3P-100
Hsa-miR-495	HM495-100
Hsa-miR-502	HM502-100E
Hsa-miR-510	HM510-100
Hsa-miR-517a-3p	HM517A-3P-100
Hsa-miR-520	HM520C-100E
Hsa-miR-574-3p	HM574-3P-100
Hsa-miR-638	HM638-100
Hsa-miR-874	HM874-100
Hsa-miR-183	HM183-100
Hsa-miR-508-3p	HM508-3P-100
Hsa-miR-509-3p	HM509-3P-100
Hsa-miR-342-3p	HM342-3P-100
Hsa-miR-372	HM372-100
Hsa-miR-944	HM944-100
Hsa-miR-137	HM137-100
Hsa-miR-184	HM184-100
Hsa-miR-211	HM211-100
Hsa-miR-376c	HM376C-100
Hsa-miR-532	HM532-5P-100E
Hsa-miR-573	HM573-100
Hsa-miR-1296	HM1296-100
Hsa-miR-130b	HM130B-100
Hsa-miR-154	HM154-100
Hsa-miR-541	HM541-100
Hsa-miR-29b-3p	HM29B-3P-100E
Hsa-miR-330	HM330-100
Hsa-miR-374b	HM374B-100
Hsa-miR-4723	HM4723-100E
Hsa-miR-642a	HM642A-5P-100
Hsa-miR-765	HM765-100
Hsa-miR-940	HM940-100

Hybridization Detection System

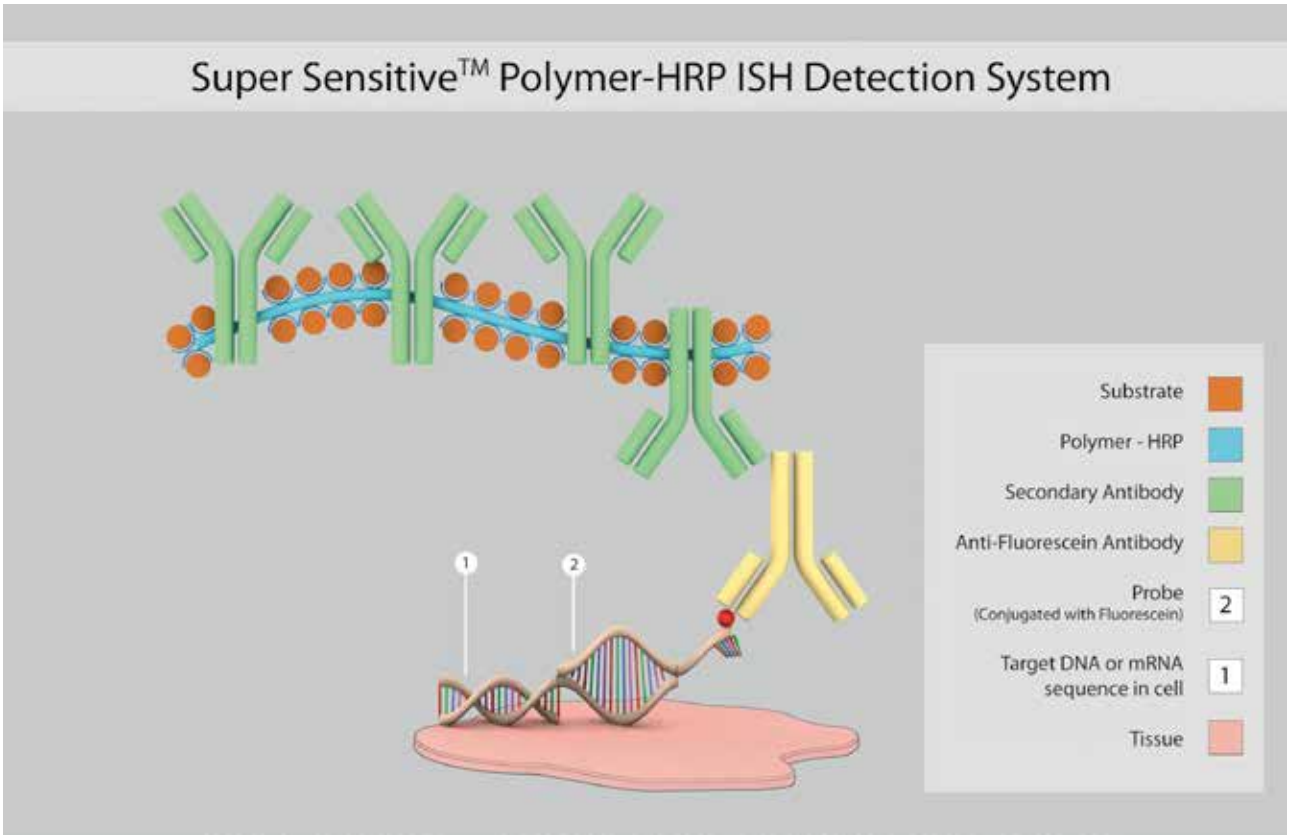
in situ Hybridization (ISH) is a powerful technique for detecting and localizing specific nucleic acid sequences within cells or tissues. This is achieved by the hybridization of a labeled probe to the specific RNA/DNA sequence within the cell and subsequent detection of the bound probe. ISH technique enables the semi-quantification of mRNA expression and helps determine the temporal and spatial patterns of gene expression in cells, tissue and whole animals. ISH technique can also be used for detection of intracellular pathogens with a very high degree of sensitivity.

Super Sensitive™ (Manual) & XISH (Xmatrx®) One-Step Polymer-HRP Detection System

This is a novel detection system using a non-biotin polymeric technology that makes use of Poly-HRP reagent. As the system is not based on the Biotin-Avidin System, problems associated with endogenous biotin are completely eliminated. The technology allows excellent cell penetration ability for intense staining, compared with other polymer HRPs.

Features & Benefits:

- Clean Stain without endogenous biotin background
- High signal to noise ratio for intense stain
- Universal system for all fluorescein labeled probes
- Available in barcode labeled (XISH kit) for Automation or in dropper bottles (Super Sensitive kit) for manual staining



ISH Detection Systems Composition

Product Name	SKU	Liquid Pepsin	NAR	Hybridization Solution II	Wash Buffer A	Wash Buffer B	Wash Buffer E	Wash Buffer F	Peroxide Block	Power Block	Anti-Fluorescenic Antibody	One Step PolyHRP	Substrate	Chromogen	Hematoxylin	Mixing Vial Empty
ISH Detection Kit-DEMO	DF400-25K 25 tests	2.5ml	1.5 ml	3 ml	10 ml	10 ml	10 ml	10 ml	3 mL	3 mL	1.5 mL	1.5 mL	5 mL	0.5 mL	3ml	(6 ml)
Ready to use SS1-Step Polymer HRP Detection Kit ISH (50 Test	DF400-50K 50 tests	5ml	3 ml	5 ml	20 ml	20 ml	20 ml	20 ml	5.5 mL	5.5 mL	3 mL	3 mL	10 mL	1.5 mL	5ml	Mixing Vial (6 ml)
XISH™ One Step Polymer HRP DetectionSystem for Xmatrx	DF400-YAD 100 tests Xmatrx®-Elite	5ml	5 ml	6 ml	2x10 ml	2x10 ml	2x10 ml	2x10 ml	10 ml	10 ml	5 ml	5 ml	4X5 ml	2 ml	10ml	16 ml X 5
XISH™ One step PolymerHRP Detection Kit for NanoVip (Open System)	DF540-YADX 100 Tests NanoVip™ (Open System)	2x6ml	8 ml	8 ml	2x6ml	2x6ml	2x6ml	2x6ml	2x6ml	2x6ml	8ml	2x6ml	2x8ml	4ml	2x6ml	1vial
XISH™ One step PolymerHRP Detection Kit for NanoVip (Close System)	DF541-YADX 100 Tests NanoVip™ (Open System)	2x6ml	8 ml	8 ml	2x6ml	2x6ml	2x6ml	2x6ml	2x6ml	2x6ml	8ml	2x6ml	2x8ml	4ml	2x6ml	2vial
XISH 1-Step Polymer HRP Detection Kit (NanoVip™300)	DF542-50X 100 Tests NanoVip™300 (Open System)	6ml	6ml	6 ml	6 ml	6 ml	6 ml	6 ml	12 ml	12 ml	6 ml	12 ml	12 ml	4 ml	12 ml	20 ml X 3

Product	Size	Cat. No.	Description
NAR1	250 mL	HK873-5K	Microwave based nucleic acid retrieval for manula use only

Substrates and Chromogens

BioGenex offers complete Substrate Packs for immunohistochemical staining with alkaline phosphatase and peroxidase labels. The kits are designed to reduce substrate preparation time and minimize exposure to chemical hazards. The chart below summarizes the substrates offered, indicating enzyme and standard mounting media compatibility.

Features & Benefits:

- High Resolution AEC and Liquid DAB
- Rapid Development Time
- Ready-to-Use Solutions
- Long-Term Stability

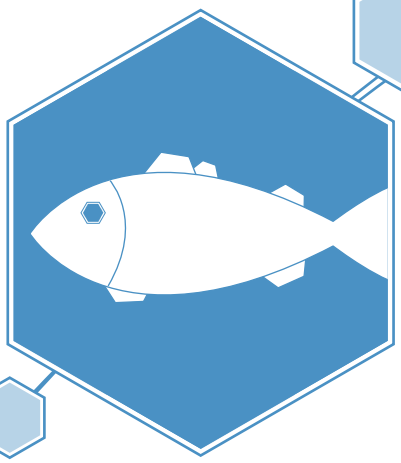
The chart below summarizes the compatibility of mounting medium, chromogens and counterstains

Chromogen	Stain Color	Enzyme used	Solubility in Alcohol/Xylene	Compatible with Hematoxylin	Compatible Mounting Media
AEC	Brick Red	HRP	Yes	Yes	Aqueous or Super Mount
DAB	Brown	HRP	No	Yes	Aqueous, Super Mount or Xmount
Elegance Red	Red	AP	No	Yes	Aqueous, Super Mount or Xmount
Fast Red	Red	AP	Yes	Yes	Aqueous or Super Mount
New Fuchsin	Red	AP	Yes	Yes	Aqueous or Super Mount
Black	Black	HRP	No	Yes	Aqueous, Super Mount or Xmount
Green	Green	HRP	No	Yes	Aqueous, Super Mount or Xmount
Purple	Purple	HRP	No	Yes	Aqueous, Super Mount or Xmount
Blue	Blue	HRP	No	Yes	Aqueous, Super Mount or Xmount
Yellow	Yellow	HRP	No	Yes	Aqueous, Super Mount or Xmount

ISH - Substrates and Chromogens Packs – Manual & Open system**

Product Name	60 Tests*	250 Tests*	500 Tests*/Large
Two Component DAB (BUFFER+CHROMOGEN) (1000 slides)	NA	NA	HK542-XAKE
BGX HRP Black Kit	No	HL302-25K	HL302-YAK
BGX HRP Green Kit	No	HL301-25K	HL301-YAK
Fast Red	NA	NA	HK182-5KE
New Fuchsin (400 slides)	NA	NA	HK183-5KE
AEC One Step Sol.	HK139-06K	NA	HK139-50K

* 100 µL/test of prepared reagent
** Reagent vials for Xmatrx®& i6000™ open systems need to be purchased separately



eFISHiency

eFISHiency

Fluorescence *in situ* hybridization (FISH) is a robust cytogenetic technique used for the detection of chromosomal aberrations viz., deletions, amplification and translocation in tissue sections or within individual cells in native context. In this technique florescent probes bind to the target sequence of DNA chromosome. High specificity and sensitivity coupled with rapid and accurate result has proven the role of FISH in both research and diagnosis of solid tumor and hematological malignancies. FISH is also used in genetic counseling, medicine and species identification. FISH can also be used to detect and localize specific RNA targets in cells, circulating tumor cells and tissue samples.

In an FISH procedure, fixed tissue sections/cytology specimens are pretreated to expose target DNA or mRNA sequences. An appropriately labeled probe is hybridized to the exposed target in the cells, followed by stringency washing steps to remove non-specifically bound probe. Subsequently slides are mounted using DAPI/antifade and can be visualized under fluorescence microscope using appropriate filter set.

eFISHiency: Comprehensive high-throughput automated FISH processing systems

BioGenex offers the eFISHiency system, a complete solution for cytogenetic FISH laboratory requirements under one umbrella, consisting of eFISH probes, pretreatment kits and high-throughput automated/semi-automated platforms.

Sr #	eFISHiency	Components	Description
1	eFISH probes	FISH probes covering major genetic aberrations	Probes for detection and diagnosis of genetic aberrations
2	eFISH kits	eFISH Histo	eFISH kit for histology FFPE tissue samples
		eFISH Cyto	eFISH kit for cytology specimens
3	eFISH processing systems	Xmatrx® ELITE	World's only high-throughput front end FISH processing system that process FISH slides from microtome to microscope including final coverslipping. 40 different protocols in combination of histology and cytology specimens/ probes can be processed at a time.
		NANO VIP® 100	10 slides semi-automated work station for small size FISH laboratory requirement with provision of manual pipetting of FISH probes, DAPI and costly reagents. 10 different protocols in combination of histology and cytology specimens/ probes can be processed at a time
		NANO VIP® 300	30 slides semi-automated work station for small size FISH laboratory requirement with provision of manual pipetting of FISH probes, DAPI and costly reagents. 30 different protocols in combination of histology and cytology specimens/ probes can be processed at a time
		Xmatrx® MINI	10 slides manual FISH processing platform with provision of on board pretreatment, dewaxing and washing. 10 different protocols in combination of histology and cytology specimens/probes can be processed at a time

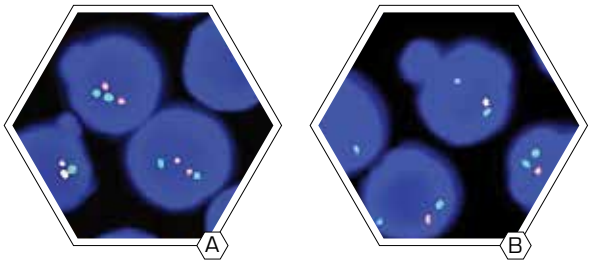
IVD Products: Unless specified otherwise, all FISH Probes listed in this section are for In Vitro Diagnostics Use.

eFISHiency Integrated System a Game Changer...

• Affordable • Reproducible • Reliable

DELETION

eFISH TP53 / CEN17

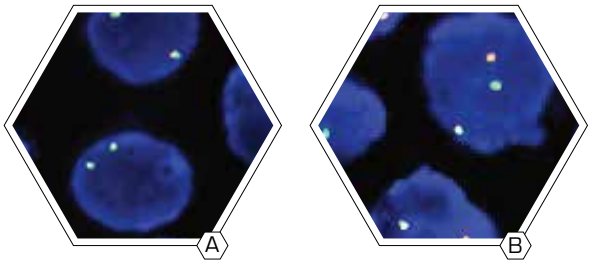


A. Normal interphase cells showing two orange and two green signals in each nucleus.

B. Bone marrow tissue with deletion of the TP53 gene as indicated by one orange signal and two green signals in each nucleus.

BREAK APART

eFISH ROS1

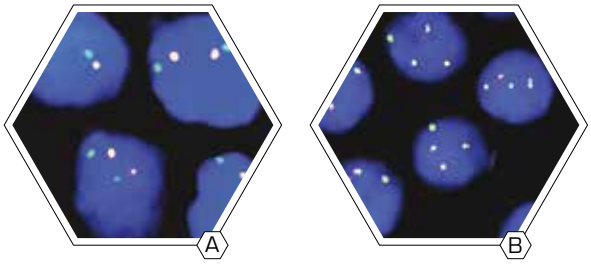


A. Normal interphase cells showing two orange/green fusion signals (yellow) in each nucleus.

B. Paraffin embedded NSCLC cells showing one orange/green fusion signal (non-rearranged). One orange signal, and one green signal indicating translocation of ROS1.

FUSION

eFISH BCR / ABL

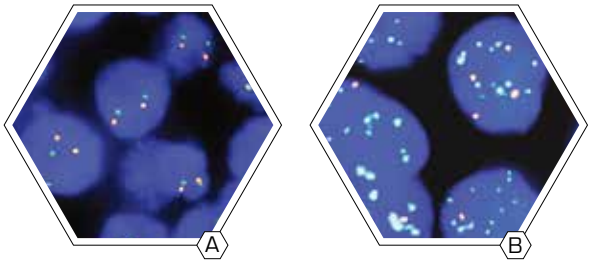


A. Normal interphase cells showing two orange and two green signals in each nucleus.

B. Bone marrow biopsy tissue with translocation affecting the BCR/ABL loci as indicated by one orange signal, one green signal and two orange/green fusion signals.

COPY NUMBER

eFISH FGFR1 / CEN8



A. Normal interphase cells showing two orange and two green signals in each nucleus.

B. Lung carcinoma tissue showing amplification of the FGFR1 gene (green) and partly polysomy 8 (orange).

eFISH Oncology Probes

Product Description	Probe Type	Colors	Cat. No. (10 Tests)	Cat. No. (20 Tests)
eFISH 1p36/1q25	Gene Deletion	• / •	FP044-10XE	FP044-20XE
eFISH 19q13/19p13	Gene Deletion	• / •	FP045-10XE	FP045-20XE
eFISH ALK	Breakapart	• / •	FP056-10XE	FP056-20XE
eFISH CHOP	Breakapart	• / •	FP050-10XE	FP050-20XE
eFISH CMYC/CEN 8	Copy Number	• / •	FP065-10XE	FP065-20XE
eFISH COL1A1	Breakapart	• / •	FP054-10XE	FP054-20XE
eFISH COL1A1/PDGFB	Dual Fusion	• / •	FP052-10XE	FP052-20XE
eFISH EGFR/CEN 7	Copy Number	• / •	FP040-10XE	FP040-20XE
eFISH EWSR1	Breakapart	• / •	FP048-10XE	FP048-20XE
eFISH FGFR1/CEN 8	Copy Number	• / •	FP042-10XE	FP042-20XE
eFISH FGFR2/CEN 10	Copy Number	• / •	FP055-10XE	FP055-20XE
eFISH FOXO1	Breakapart	• / •	FP077-10XE	FP077-20XE
eFISH FUS	Breakapart	• / •	FP058-10XE	FP058-20XE
eFISH HER2/CEN17	Copy Number	• / •	FP039-10XE	FP039-20XE
eFISH MDM2/CEN 12	Copy Number	• / •	FP038-10XE	FP038-20XE
eFISH MET/CEN 7	Copy Number	• / •	FP047-10XE	FP047-20XE
eFISH NMYC/2q11	Copy Number	• / •	FP043-10XE	FP043-20XE
eFISH p16/CEN 9	Gene Deletion	• / •	FP041-10XE	FP041-20XE
eFISH PDGFB	Breakapart	• / •	FP053-10XE	FP053-20XE
eFISH PIK3CA/CEN 3	Copy Number	• / •	FP059-10XE	FP059-20XE
eFISH RB1/13q12	Gene Deletion	• / •	FP079-10XE	FP079-20XE
eFISH RET	Breakapart	• / •	FP061-10XE	FP061-20XE
eFISH ROS1	Breakapart	• / •	FP060-10XE	FP060-20XE
eFISH SYT	Breakapart	• / •	FP049-10XE	FP049-20XE
eFISH TERT/5q31	Copy Number	• / •	FP066-10XE	FP066-20XE
eFISH TFE3	Breakapart	• / •	FP051-10XE	FP051-20XE
eFISH TP53/CEN 17	Gene Deletion	• / •	FP062-10XE	FP062-20XE
eFISH VHL/CEN 3	Gene Deletion	• / •	FP046-10XE	FP046-20XE
eFISH RET	Dual Color Break Apart	• / •	FP164-10XE	FP164-20XE
eFISH TP53/CEN 17	Dual Color	• / •	FP165-10XE	FP165-20XE
eFISH ETV6/RUNX1	Dual Color Dual Fusion	• / •	FP166-10XE	FP166-20XE
eFISH D13S319/13q34/CEN 12	Triple Color	• / • / •	FP167-10XE	FP167-20XE
eFISH RB1/13q12	Dual Color Break Apart	• / •	FP168-10XE	FP168-20XE
eFISH ETV6	Dual Color Break Apart	• / •	FP169-10XE	FP169-20XE
eFISH BCL6	Dual Color Break Apart	• / •	FP170-10XE	FP170-20XE
eFISH KMT2A	Dual Color Break Apart	• / •	FP171-10XE	FP171-20XE
eFISH PDGFRB	Dual Color Break Apart	• / •	FP172-10XE	FP172-20XE
eFISH ERBB2	(HER2)/CEN 17	• / •	FP173-10XE	FP173-20XE

eFISH ERBB2/D17S122	DUAL COLOR DUAL FUSION	•/•	FP174-10XE	FP174-20XE
eFISH TP53/ATM	DUAL COLOR		FP175-10XE	FP175-20XE
eFISH PDGFRA/FIP1L1		•/•/•	FP176-10XE	FP176-20XE
eFISH ALK/ROS1		•/•/•	FP177-10XE	FP177-20XE
eFISH BCL2/BCL6		•/•/•	FP178-10XE	FP178-20XE
eFISH CBFB	DUAL COLOR BREAK APART	•/•	FP179-10XE	FP179-20XE
eFISH NTRK1	DUAL COLOR BREAK APART	•/•	FP180-10XE	FP180-20XE
eFISH NTRK2	DUAL COLOR BREAK APART	•/•	FP181-10XE	FP181-20XE
eFISH CKS1B/CDKN2C	DUAL COLOR	•/•	FP182-10XE	FP182-20XE
eFISH FOXO1/PAX3		•/•	FP183-10XE	FP183-20XE
eFISH D13S319/13Q34	DUAL COLOR	•/•	FP184-10XE	FP184-20XE
eFISH FGFR3/IGH	DUAL COLOR DUAL FUSION	•/•	FP185-10XE	FP185-20XE
eFISH NTRK3	DUAL COLOR BREAK APART	•/•	FP186-10XE	FP186-20XE
eFISH EGR1/D5S23,D5S721	DUAL COLOR	•/•	FP187-10XE	FP187-20XE
eFISH PTPRT(20Q12-Q13.11)/20Q11.21	DUAL COLOR	•/•	FP188-10XE	FP188-20XE
eFISH CUX1/EZH2/CEN 7	TRIPLE COLOR	•/•/•	FP189-10XE	FP189-20XE
eFISH CEN X/Y	DUAL COLOR	NA	FP190-10XE	FP190-20XE
eFISH MAF/IGH	DUAL COLOR DUAL FUSION	•/•	FP191-10XE	FP191-20XE
eFISH DIGEORGE	TRIPLE COLOR	•/•/•	FP192-10XE	FP192-20XE
eFISH JAK2	DUAL COLOR BREAK APART	•/•	FP193-10XE	FP193-20XE
eFISH MAFB/IGH	DUAL COLOR DUAL FUSION	•/•	FP194-10XE	FP194-20XE
eFISH ABL2	Dual Color Break Apart	•/•	FP197-10XE	FP197-20XE
eFISH CRLF2	Dual Color Break Apart	•/•	FP198-10XE	FP198-20XE
eFISH CSF1R/D5S23,D5S721	Dual Color	•/•	FP199-10XE	FP199-20XE
eFISH GATA2/MECOM	Dual Color Dual Fusion	•/•	FP200-10XE	FP200-20XE
eFISH NUP214	Dual Color Break Apart	•/•	FP201-10XE	FP201-20XE
eFISH TP53/17q22	Dual Color	•/•	FP202-10XE	FP202-20XE

eFISH Hematology Probes

Product Description	Probe Type	Colors	Cat. No. (10 Tests)	Cat. No. (20 Tests)
eFISH ALK	Breakapart	•/•	FP056-10XE	FP056-20XE
eFISH AML1/ETO	Dual Fusion	•/•	FP072-10XE	FP072-20XE
eFISH BCL2/IGH	Dual Fusion	•/•	FP074-10XE	FP074-20XE
eFISH BCL6	Breakapart	•/•	FP080-10XE	FP080-20XE
eFISH BCR/ABL	Dual Fusion	•/•	FP071-10XE	FP071-20XE
eFISH BIRC3/MALT1	Dual Fusion	•/•	FP075-10XE	FP075-20XE
eFISH CCND1	Breakapart	•/•	FP069-10XE	FP069-20XE
eFISH CCND1/CEN 11	Copy Number	•/•	FP063-10XE	FP063-20XE
eFISH CCND1/IGH	Dual Fusion	•/•	FP057-10XE	FP057-20XE
eFISH CMYC	Breakapart	•/•	FP064-10XE	FP064-20XE

Product Description	Probe Type	Colors	Cat. No. (10 Tests)	Cat. No. (20 Tests)
eFISH CMYC/CEN 8	Copy Number	• / •	FP065-10XE	FP065-20XE
eFISH CMYC/IGH	Dual Fusion	• / •	FP067-10XE	FP067-20XE
eFISH D13S319/ 13q34/CEN 12	Copy Number	• / • / •	FP078-10XE	FP078-20XE
eFISH EGR1/5p15	Gene Deletion	• / •	FP068-10XE	FP068-20XE
eFISH ETV6	Breakapart	• / •	FP083-10XE	FP083-20XE
eFISH ETV6/RUNX1	Dual Fusion	• / •	FP076-10XE	FP076-20XE
eFISH IGH	Breakapart	• / •	FP070-10XE	FP070-20XE
eFISH p16/CEN 9	Gene Deletion	• / •	FP041-10XE	FP041-20XE
eFISH PDGFRB	Breakapart	• / •	FP081-10XE	FP081-20XE
eFISH PML/RARA	Dual Fusion	• / •	FP073-10XE	FP073-20XE
eFISH RB1/13q12	Gene Deletion	• / •	FP079-10XE	FP079-20XE
eFISH TERT/5q31	Copy Number	• / •	FP066-10XE	FP066-20XE
eFISH TP53/CEN 17	Gene Deletion	• / •	FP062-10XE	FP062-20XE
eFISH RET	Dual Color Break Apart	• / •	FP164-10XE	FP164-20XE
eFISH TP53/CEN 17	Dual Color	• / •	FP165-10XE	FP165-20XE
eFISH ETV6/RUNX1	Dual Color Dual Fusion	• / •	FP166-10XE	FP166-20XE
eFISH D13S319/13q34/ CEN 12	Triple Color	• / • / •	FP167-10XE	FP167-20XE
eFISH RB1/13q12	Dual Color Break Apart	• / •	FP168-10XE	FP168-20XE
eFISH ETV6	Dual Color Break Apart	• / •	FP169-10XE	FP169-20XE
eFISH BCL6	Dual Color Break Apart	• / •	FP170-10XE	FP170-20XE
eFISH KMT2A	Dual Color Break Apart	• / •	FP171-10XE	FP171-20XE
eFISH PDGFRB	Dual Color Break Apart	• / •	FP172-10XE	FP172-20XE
eFISH ERBB2	(HER2)/CEN 17	• / •	FP173-10XE	FP173-20XE
eFISH TP53/ATM	DUAL COLOR		FP175-10XE	FP175-20XE
eFISH PDGFRA/FIP1L1		• / • / •	FP176-10XE	FP176-20XE
eFISH ALK/ROS1		• / • / •	FP177-10XE	FP177-20XE
eFISH BCL2/BCL6		• / • / •	FP178-10XE	FP178-20XE
eFISH CBFB	DUAL COLOR BREAK APART	• / •	FP179-10XE	FP179-20XE
eFISH NTRK1	DUAL COLOR BREAK APART	• / •	FP180-10XE	FP180-20XE
eFISH NTRK2	DUAL COLOR BREAK APART	• / •	FP181-10XE	FP181-20XE
eFISH CKS1B/CDKN2C	DUAL COLOR	• / •	FP182-10XE	FP182-20XE
eFISH FOXO1/PAX3		• / •	FP183-10XE	FP183-20XE
eFISH D13S319/13Q34	DUAL COLOR	• / •	FP184-10XE	FP184-20XE
eFISH FGFR3/IGH	DUAL COLOR DUAL FUSION	• / •	FP185-10XE	FP185-20XE
eFISH NTRK3	DUAL COLOR BREAK APART	• / •	FP186-10XE	FP186-20XE
eFISH EGR1/ D5S23,D5S721	DUAL COLOR	• / •	FP187-10XE	FP187-20XE
eFISH PTPRT(20Q12-Q13.11)/20Q11.21	DUAL COLOR	• / •	FP188-10XE	FP188-20XE

Product Description	Probe Type	Colors	Cat. No. (10 Tests)	Cat. No. (20 Tests)
eFISH CUX1/EZH2/CEN 7	TRIPLE COLOR	•/•/•	FP189-10XE	FP189-20XE
eFISH CEN X/Y	DUAL COLOR	NA	FP190-10XE	FP190-20XE
eFISH MAF/IGH	DUAL COLOR DUAL FUSION	•/•	FP191-10XE	FP191-20XE
eFISH DIGEORGE	TRIPLE COLOR	•/•/•	FP192-10XE	FP192-20XE
eFISH JAK2	DUAL COLOR BREAK APART	•/•	FP193-10XE	FP193-20XE
eFISH MAFB/IGH	DUAL COLOR DUAL FUSION	•/•	FP194-10XE	FP194-20XE
eFISH ABL2	Dual Color Break Apart	•/•	FP197-10XE	FP197-20XE
eFISH CRLF2	Dual Color Break Apart	•/•	FP198-10XE	FP198-20XE
eFISH CSF1R/ D5S23,D5S721	Dual Color	•/•	FP199-10XE	FP199-20XE
eFISH GATA2/MECOM	Dual Color Dual Fusion	•/•	FP200-10XE	FP200-20XE
eFISH NUP214	Dual Color Break Apart	•/•	FP201-10XE	FP201-20XE
eFISH TP53/17q22	Dual Color	•/•	FP202-10XE	FP202-20XE

eFISH Enumeration Probes

Product Description	Probe Type	Colors	Cat. No. (10 Tests)	Cat. No. (20 Tests)
eFISH 1p12	Copy Number	•	FP084-10XE	FP084-20XE
eFISH 2q11	Copy Number	•	FP085-10XE	FP085-20XE
eFISH CEN 3	Copy Number	•	FP086-10XE	FP086-20XE
eFISH 4p11	Copy Number	•	FP087-10XE	FP087-20XE
eFISH CEN 6	Copy Number	•	FP088-10XE	FP088-20XE
eFISH CEN 7	Copy Number	•	FP089-10XE	FP089-20XE
eFISH CEN 8	Copy Number	•	FP090-10XE	FP090-20XE
eFISH CEN 9	Copy Number	•	FP091-10XE	FP091-20XE
eFISH CEN 10	Copy Number	•	FP092-10XE	FP092-20XE
eFISH CEN 11	Copy Number	•	FP093-10XE	FP093-20XE
eFISH CEN 12	Copy Number	•	FP094-10XE	FP094-20XE
eFISH 13q12	Copy Number	•	FP095-10XE	FP095-20XE
eFISH CEN 13/ CEN 18/CEN 21	Copy Number	•/•/•	FP096-10XE	FP096-20XE
eFISH CEN 17	Copy Number	•	FP097-10XE	FP097-20XE
eFISH CEN 18	Copy Number	•	FP098-10XE	FP098-20XE
eFISH 21q22	Copy Number	•	FP099-10XE	FP099-20XE
eFISH CEN X	Copy Number	•	FP100-10XE	FP100-20XE
eFISH CEN Yq12	Copy Number	•	FP101-10XE	FP101-20XE

eFISH pretreatment kits

eFISH Histo is designed to meet the FISH processing requirement of FFPE tissues while eFISH Cyto is designed for cytology and hematology specimens. Kits contain buffers and reagents for pretreatment and post hybridization stringency washes and are compatible on automation platforms: Xmatrx® ELITE, Xmatrx® NANO VIP and Xmatrx® MINI.

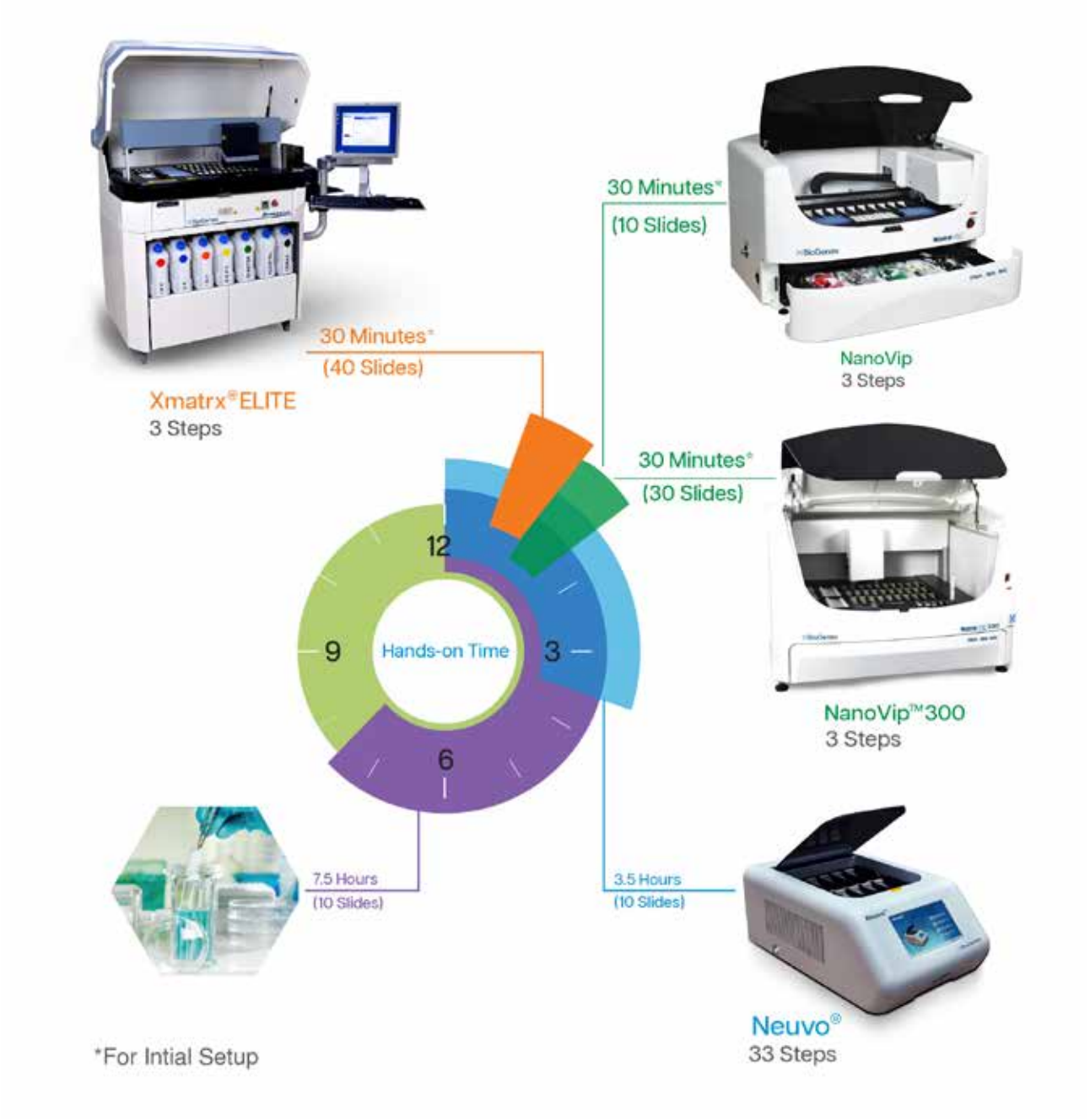
Product Name	Cat. No	EZ-AR 2	Wash Buffer1	Wash Buffer 2	Liquid Pepsin	Reagent A	Formalin Fixative
eFISH Histo (Xmatrx)	DF500-20XE 20 Tests	5 ml	200 ml	-	7 ml	12 ml	-
eFISH Cyto (Xmatrx)	DF510-20XE 20 Tests	-	200 ml	200 ml	7 ml	-	200ml
eFISH Histo NanoVip™	DF520-20X 20 Tests	4 ml	200 ml	-	6 ml		-
eFISH Cyto NanoVip™	DF530-20X 20 Tests	-	200 ml	200 ml	6 ml	08 ml	8ml
eFISH Histo NanoVip™ (open system)	DF521-50X 50 Tests	6ml	500 ml	-	2X6 ml	-	-
eFISH Cyto NanoVip™ (open system)	DF531-50X 50 Tests	-	500 ml	500ml	2X6 ml	2x8ml	2x8ml
eFISH Histo NanoVip™ (closed system)	DF522-50X 50 Tests	6ml	500 ml	-	2X6 ml	-	
eFISH Cyto NanoVip™ (closed system)	DF532-50X 50 Tests	-	500 ml	500ml	2X6 ml	2x8ml	2x8ml
eFISH Histo NanoVip™ NanoVip™® 300	DF523-50X 50 Tests	6ml	250 ml	-	1X12 ml	1X12 ml	
eFISH Cyto NanoVip™ NanoVip™® 300	DF533-50X 50 Tests	-	250 ml	250 ml	1X12 ml	-	1X12 ml

Product	Cat. No.	Size	Description
NAR1	HK873-5K	250 mL	Microwave based nucleic acid retrieval for manula use only

eFISH Processing systems

True eFISHiency

Now FISH can be the nexus of a more efficient and more productive laboratory. With a family of Xmatrx® systems, you have the freedom to attend to more demanding tasks while delivering high-quality and standardized results every time.



Rethink the way FISH fits into your workflow

Xmatrx® ELITE

Microtome to Microscope

- The world's first and only fully automated front-end FISH processing system
- Run up to 40 slides under multiple protocols
- Reduce hands-on tech time from 7.5 hours to 30 minutes

Three Simple Steps:

Load ➡ Click ➡ View

NanoVip™

eFISHiency System for FISH Automation

- On-board dewaxing, oil seal and final coverslip after DAPI
- Run 10 different protocols at the same time

33 Steps Reduced to 3

Load ➡ Click ➡ View

NanoVip™ 300

eFISHiency System for FISH Automation

- On-board dewaxing, oil seal and final coverslip after DAPI
- Run 10 different protocols at the same time

Neuvo®

eFISHiency Workstation

- eFISHiency Workstation for manual FISH assay
- Hybridizer with eXACT™ temperature controls
- 10 Independently programmable thermal cyclers
- Built-in touch screen display
- Manual coverslip application and removal

Accessories

Oil stamp | Coverslip stand | Suction pen

Product Name	Cat. No	EZ-AR 2	Wash Buffer1	Wash Buffer 2	Liquid Pepsin	Reagent A	Formalin Fixative
eFISH Histo (Xmatrx)	DF500-20XE 20 Tests	5 ml	200 ml	-	7 ml	12 ml	-
eFISH Cyto (Xmatrx)	DF510-20XE 20 Tests	-	200 ml	200 ml	7 ml	-	200ml
eFISH Histo NanoVip™	DF520-20X 20 Tests	4 ml	200 ml	-	6 ml		-
eFISH Cyto NanoVip™	DF530-20X 20 Tests	-	200 ml	200 ml	6 ml	08 ml	8ml
eFISH Histo NanoVip™ (open system)	DF521-50X 50 Tests	6ml	500 ml	-	2X6 ml	-	-
eFISH Cyto NanoVip™ (open system)	DF531-50X 50 Tests	-	500 ml	500ml	2X6 ml	2x8ml	2x8ml
eFISH Histo NanoVip™ (closed system)	DF522-50X 50 Tests	6ml	500 ml	-	2X6 ml	-	
eFISH Cyto NanoVip™ (closed system)	DF532-50X 50 Tests	-	500 ml	500ml	2X6 ml	2x8ml	2x8ml

Product	Cat. No.	Size	Description
NAR1	HK873-5K	250 mL	Microwave based nucleic acid retrieval for manula use only

eFISH Processing systems

True eFISHiency

Now FISH can be the nexus of a more efficient and more productive laboratory. With a family of Xmatrx® systems, you have the freedom to attend to more demanding tasks while delivering high-quality and standardized results every time.

Rethink the way FISH fits into your workflow

Xmatrx® ELITE

Microtome to Microscope

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- Run up to 40 slides under multiple protocols
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eFISHiency Workstation

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Accessories

Oil stamp | Coverslip stand | Suction pen

Family of Xmatrx® Systems to Provide Optimum Workflow Solutions for Your Laboratory Needs

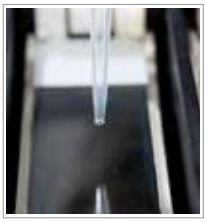
With superior staining quality and enhanced laboratory productivity in mind, we have developed a family of Xmatrx® Systems to produce standardized results and provide optimum workflow solutions for your laboratory needs by:

• Streamlining lab workflow • Increasing throughput • Improving reproducibility • Freeing up critical resources

Xmatrx® ELITE


Placement of slides on eXACT™ temperature controlled blocks


Automated application of oil for sealing


Automated dispensing of micro-reagents (proteinase, probe and DAPI)


Automated application and removal of coverslips


Automated wash and airblow to dry slides


Automated mounting and final coverslip after DAPI

NanoVip™


Placement of slides on eXACT™ temperature controlled blocks


Automated application of oil for sealing


Automated application and removal of coverslips


Automated wash and airblow to dry slides

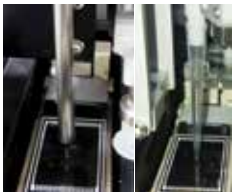

Automated mounting and final coverslip after DAPI

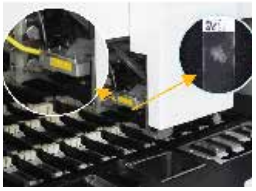
NanoVip™ 300


Complete Workstation

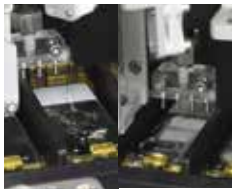

eXACT™ Temperature Control and Thermal Cycling


Hydrophobic Barrier


Reagent Dispensing


*Target Reagent Dispensing


Probe Washing


Wash & Airblow

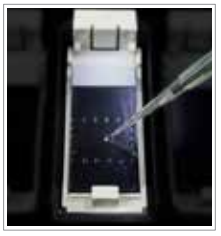

Apply Coverslip


**QR Coded Vials & Slides

Xmatrx® MINI

Placement of slides on eXACT™ temperature controlled blocks

Manual application of oil with anoil stamp for sealing reaction chamber [micro-chamber]



Manual dispensing of micro-reagents (proteinase, probe and DAPI)

Manual application and removal of coverslips with a suction pen

Manual wash and dry with aid of heat

Manual mounting and coverslip after DAPI

Consumables & Ancillary Reagents

Buffers and Diluents

Buffers and diluents are available for Immunohistochemistry, *in situ* Hybridization Special Stains and most other applications.

- General buffers, such as PBS (pH 7.6) and TBS (pH 7.6, 0.1 M) can be used for washing/rinsing of slides.
- Super Sensitive™ Wash Buffer is phosphate buffered saline (pH 7.4) with surfactant and is used to ensure optimal staining with even spreading of antibodies and other reagents to avoid inconsistent results.
- Common Antibody Diluent and Enhanced Antibody Diluent have been developed for use with all antibodies in immunohistochemistry and have been specifically optimized for use with BioGenex antibodies and reagent products. These diluents enable enhancement of signal-to-noise ratio of staining when used optimally and also help in maintaining the antibody specificity and stability. The Enhanced Antibody Diluent, in addition to all the above features, contains chemical compounds to enhance antigen-antibody interaction and affinity. In order to achieve desired staining pattern and intensity, the titers of antibodies or concentrations of reagents may need to be optimized. These diluents are also for diluting concentrated Alkaline Phsophatase (AP) labels but are not suitable for diluting Horseradish Peroxidase (HRP) labels because they contain Sodium Azide.
- Streptavidin Peroxidase Diluent, was developed especially for diluting concentrated HRP labels and does not contain Sodium Azide.
- Link Diluent, was developed for diluting concentrated Link (Biotinylated Anti-Immunoglobulins) antibodies

Buffers - Manual & Automation

Product Name	500 mL(20x)	1000 mL(20x)
Phosphate Buffered saline	HK091-9K	-
Super Sensitive Wash Buffer	HK583-5K	-
X-Wash Buffer, 20X for Xmatrx®	HX020-YIK	-
Tris Buffer (Wash Buffer) 3/Pack (dries powder to make 3L)	HK098-5K	-
SSC Wash Buffer (2X)	HK975-5K	HK974-XAK
0.4X SSC Wash Buffer (10X)	HK975-5K	HK975-XAK

Diluents- Manual

Product Name	100 mL(RTU)
Common Antibody Diluent	HK156-5K
Enhanced Antibody Diluent	HK941-YAK
Link Diluent	HK165-5K
Streptavidin Peroxidase Diluent	HK157-5K

Blocking Reagents

• **Peroxide Block:** Endogenous peroxidase is most commonly encountered in red blood cells, kidney, and liver tissue. Peroxide Block should be used prior to application of primary antibody when Horseradish Peroxidase (HRP) is used as the labeling enzyme, and if it is necessary to block endogenous peroxidase activity in the tissue being stained.

• **Power Block™:** This is a blocking reagent for reducing nonspecific background in immunoassays. A truly universal block, it is suitable for use in immunohistochemistry, immunocytochemistry, ELISA methods, and immunogold techniques. The Power Block™ reagent contains buffer, casein and preservative and also works well as an antibody diluent and washing medium.

• **Protein Block:** This can be used to reduce background staining due to non-specific binding of the primary or secondary antibodies to the tissue. Protein Block should be applied immediately prior to the primary antibody.

• **Avidin/Biotin Blocking Kit:** Certain tissues especially liver, kidney, and GI tract are rich in biotin. Use of the Avidin/Biotin Blocking kits ensures the blocking of all endogenous biotin, biotin receptors, or avidin binding sites present in the tissue. Pre-treatment of tissues with avidin blocking should always be followed with biotin blocking.

Blocking Reagents-Manual/Open System*

Product Name	6 mL(RTU)	50 mL(RTU)	100 mL(10X)
Peroxide Block	HK111-5K	HK111-50K	NA
Protein Block (Normal Goat Serum)	HK112-5K	HK112-9K	NA
Protein Block (Normal Rabbit Serum)	HK114-5K	NA	NA
Power Block	HK083-5K	HK083-50K	HK085-50K
Avidin/Biotin Blocking Kit	HK102–5KE	NA	NA

* Reagent vials for Xmatrx®& i6000™ open systems need to be purchased separately.

Substrates and Chromogens

BioGenex offers complete Substrate Packs for immunohistochemical staining with alkaline phosphatase and peroxidase labels. The kits are designed to reduce substrate preparation time and minimize exposure to chemical hazards. The chart below summarizes the substrates offered, indicating enzyme and standard mounting media compatibility.

Features & Benefits

- High Resolution AEC and Liquid DAB
- Rapid Development Time
- Ready-to-Use Solutions
- Long-Term Stability

IHC - Substrates and Chromogens Packs – Manual & Open system**

Product Name	60 Tests*	250 Tests*	500 Tests/Large*
Fast Red	NA	NA	HK182-5K
Elegance Red	NA	NA	HK144-5K
New Fuchsin (400 slides)	NA	NA	HK183-5K
Two Component DAB (BUFFER+CHROMOGEN) (1000 slides)	NA	NA	HK542-XAK
AEC One Step Sol.	HK139-06K	NA	HK139-50K

Product Name	60 Tests*	250 Tests*	1000 Tests*
Poly HRP Green DAB	NA	HL301-25K	HL301-YAK
Poly HRP Black DAB	NA	HL302-25K	HL302-YAK

* 100 µL/test of prepared reagent
** Reagent vials for Xmatrx®& i6000™ open systems need to be purchased separately

The chart below summarizes the compatibility of mounting medium, chromogens and counterstains.

Chromogen	Stain Color	Enzyme used	Solubility in Alcohol/Xylene	Compatible with Hematoxylin	Compatible Mounting Media
AEC	Brick Red	HRP	Yes	Yes	Aqueous or Super Mount
DAB	Brown	HRP	No	Yes	Aqueous, Super Mount or Xmount
Elegance Red	Red	AP	No	Yes	Aqueous, Super Mount or Xmount
Fast Red	Red	AP	Yes	Yes	Aqueous or Super Mount
New Fuchsin	Red	AP	Yes	Yes	Aqueous or Super Mount

Counterstains and Mounting Media

BioGenex offers the following counterstains for use in Immunohistochemistry, *in situ* Hybridization and other applications with either manual or automated staining systems.

• Mayer's hematoxylin is a blue stain that does not contain alcohol and therefore is compatible with both alcohol soluble non-permanent chromogens (AEC, Fast Red & New Fuchsin) and alcohol-insoluble chromogens (DAB & Elegance Red). It is alcohol and xylene insoluble and therefore compatible with most clearing agents and mounting media.

• DAPI (4',6-diamidino-2-phenylindole) is a fluorescent blue stain used as nuclear counterstain in Fluorescent *In Situ* Hybridization (FISH) and Immunofluorescence (IF) applications. DAPI strongly binds A-T rich regions in DNA andcan be used to stain nuclei of both live and fixed cells. DAPI has an absorption maximum at a wavelength of 358 nm and its emission maximum is at 461 nm.

Product Name	1 mL(RTU)	6 mL(RTU)	250 mL (RTU)
Hematoxylin, Mayer's (IHC, ISH)	NA	HK100-5K	HK100-9K
DAPI in Mounting Medium (FISH,IF)	HK606-10K	NA	NA

Mounting of all stained biological specimens is an essential step before their microscopic evaluation. Mounting also enables the slides to be archived for long periods of time. The mounting medium may be used to attach a coverslip or may itself serve as a coverslip substitute. The choice of mounting medium depends on whether long-term or short-term preservation is desired, and whether the mounting procedure is chemically compatible with the chromogen and the counterstain.

• SuperMount®Permanent Mounting Medium is a polymer based aqueous mounting media that does not require the use of a coverslip. This innovative, patented mounting medium (BioGenex's U.S. Patent No. 5,492,837) is designed to preserve biological specimens for long-term storage. SuperMount® medium is compatible with most aqueous and organic-soluble dyes and chromogens including AEC, DAB, Elegance Red, Fast Red, New Fuchsin, BCIP/NBT, Rhodamine, Fluorescein, Texas Red, Phycoerythrin, Phycocyanin, and Fat Stain (Oil Red O). The refractive index of SuperMount® yields greater transparency and clarity of specimens to be examined under the microscope. SuperMount® can be used for the mounting of all biological specimens, including stained tissue sections, Cytospin preparations, and blood smears.

• Aqueous Mounting Medium is glycerol-based mounting medium that require the use of a coverslip. It is intended for short-term specimen storage and is compatible with most chromogens and counterstains.

• XMount™ Mounting Medium is a permanent mounting medium that has been optimized for use with BioGenex™ instrument for all BioGenex detection systems for immunohistochemistry (IHC), In Situ Hybridization (ISH) and special stains. XMount™ is intended for use with alcohol and xylene insoluble chromogens, such as DAB (for peroxidase systems) and Elegance Red (for alkaline phosphatase systems). XMount™ dries clear with an ideal refractive index similar to high quality glass and tissue elements. Mounted slides can be viewed with high magnification oil immersion lenses. Also, when mounting preparations stained with the BCIP/NBT substrate, crystal formation that may occur when using other media is minimized.

Mounting Medium

Product Name	15 mL(RTU)	50 mL(RTU)
Aqueous Mounting Medium - Manual	HK099-5K	NA
SuperMount Permanent Mounting Medium - Manual	HK079-5K	HK079-7K
Xmount Mounting Media (200 tests) – barcode	HX035-YCD	NA
Xmount Mounting Media (200 tests) – Xmatrx® Infinity	HX035-10X	NA

Negative Control Sera/Immunoglobulins

Each staining run should include a negative control slide to confirm reagent specificity. BioGenex, for this purpose, offers negative control sera/immunoglobulins which have been optimized for use as negative controls for our Super Sensitive™, Ready-to-Use antibodies. Negative controls are available for Mouse, Rabbit, Goat and Rat antibodies.

Negative Control Sera/Immunoglobulins

Product Name	3 mL	17 mL
Goat	HK406-5G	NA
Mouse	HK119-5M	HK119-7M
Rabbit	HK408-5R	HK408-7R
Rat	HK407-5T	NA

Reagent Vials & Accessories

1. i6000™ Elite & Xmatrx® Infinity

The OptiMiser reagent vials (U.S. & Foreign Equivalent Patents Pending) are available as a 20 mL disposable pack for use on the i6000™ or Xmatrx® Infinity staining systems. Vials are designed to minimize dead volume: <0.5 mL for 20 mL vials and 0.05 mL for 2 mL vials. Barcode labeled vials for use with antibodies from any supplier (user defined) are also available (XT026-601 to XT026-899 & XT026-601P to XT026-750P).

Cat. No.	Description	Figure
XT026-V24	Small White vials (20 mL) (24 per pack)	
XT101-24X	Brown vial without Neck/lid as holder for 2 mL insert (24 per pack)	
XT126-24V	Brown vial without Neck/lid as holder for 2 mL insert (24 per pack)	

Cat. No.	Description	Figure
XT149-V24	Vial Insert – 2 mL (24 per pack)	
XT027-H24	Vial holders (24 per pack)	
• 20 mL vials are provided with the vial holder ready to be placed in the reagent vial tray. • 2 mL vials need to be inserted in the vials without neck as shown here.		

2. Xmatrx® Elite

Reagents vials for Xmatrx® Elite Automated Staining Systems are barcode labeled 17 mL vials especially designed to ensure accurate identification, proper reagent inventory management and staining of up to 200 slides. These vial's dead volume is minimized to <0.5 mL. barcode labeled vials for use with antibodies from any supplier (user defined) are also available (XT077-AX601 to XT077-AX0999).

ISH probes are supplied in 2 mL vials, inserted in barcode labeled vial holders thus minimizing dead volume to <0.05 mL. barcode labeled vials for use with ISH probes from any supplier (user defined) are also available (XT079-PR0050 to XT079-PR0099).

Reagent Vials & Accessories for i6000™ Diagnostics

Product	1 unit
Slide Barcode Labels (Monoclonal Abs) -100/Sheet	AM6010-AM6990
Slide Barcode Labels (Polyclonal Abs) -100/Sheet	AR6010-AR6300
User defined Empty barcode-labeled Vials (20 mL)	XT026-601 to XT026-899
User defined Empty barcode-labeled Vials for user polyclonal antibodies (20mL)	XT026-601P to XT026-750P

Reagent Vials & Accessories for Xmatrx® Elite

Product	1 unit
Slide Barcode Labels (Monoclonal Abs) -100/Sheet	AM6010-AM6990
Slide Barcode Labels (Polyclonal Abs) -100/Sheet	AR6010-AR6300
User defined Empty barcode labeled vials- ISH Probes	XT079-PR0050 to XT079-PR0099
User defined Empty barcode labeled vials- One step IHC	XT077-AX0801 to XT077-AX0999
User defined Empty barcode labeled vials- Two step IHC	XT077-AX0601 to XT077-AX0800

Microscope Slides & Coverslips

OptiPlus™ Positive-Charged Microscope Slides provide a strong adhesive surface for tissues and cells to prevent tissue displacement during harsh pre-treatments such asenzymatic digestion and the microwave Antigen Retrieval method. These slides are ideal for automated systems. Additionally, each slide has a frosted end for easy labeling.The OptiPlus™ Positive-Charged Barrier Slides have all the advantages of our regular OptiPlus™ slides, but also contain hydrophobic barriers that allow the quantity of reagents per slide to be tailored to the size of the specimen. These slides eliminate reagent waste without the need to use a PAP pen, thereby reducing set-up time in manual assays as well as in automated systems. The permanent hydrophobic barriers are compatible with dewaxing solutions and other reagents. The slides are suitable for use with frozen tissue sections, formalin-fixed paraffin sections, and cytology preparations.

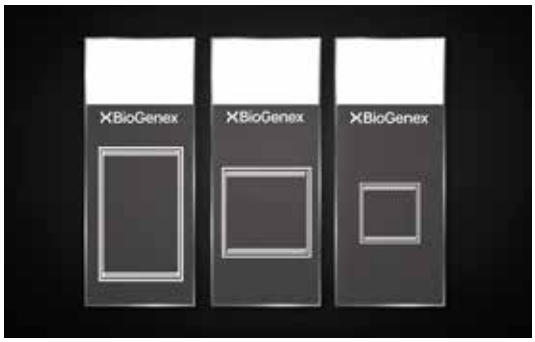
1. i6000™ Elite Automated Staining Systems

OptiPlus™ Barrier slides for i6000™ come in three different configurations to accommodate different tissue sizes or multiple tissues per slide:

1. A single, full-size test area of 25 x 40 mm

2. A single 2/3-size test area of 25 x 30 mm

3. Three 1/3-size test areas per slide, each measuring 25 x 15 mm



2. Xmatrx® & NanoVip™® Automated Staining Systems

OptiPlus™ Barrier Slides for Xmatrx® (U.S. & Foreign Equivalent Patents Pending) contain a double hydrophobic barriers that allows formation of an oil seal to prevent evaporation of microreagents during high temperature steps and prolonged incubations. Four different configurations are available:

1. A single test area of 25 x 40 mm (>80 µL of reagent recommended)

2. A single test area of 25 x 25 mm (>40 µL of reagent recommended)

3. A single test area of 18 x 18 mm (>10 µL of reagent recommended)

4. Two test area per slide, each measuring 18 x 18 mm

Coverslips are optimized for use on Xmatrx® staining systems and come is three configurations to accommodate the different barrier slides.

Microscope Slides & Accesories for i6000™ and Manual

Product	1 Box	1 Case
Microchamber Slides, 3 x 1/3 Test Areas	XT014-SL	XT128-CL
Microchamber Slides, 2/3 Test Area	XT013-SL	XT114-CL
Microscopic Slides	XT002-SL	XT108-CL
PAP Pen (For 500 to 1000 Slides)-1 unit	XT001-PP	XT134-CL

Microscope Slides & Accesories for i6000™ and Manual

Product	1 Box	1 Case
Microchamber Slides, 18 x 18 mm (70/box, 1400/case)	XT128-SL	XT128-CL
Microchamber Slides, 18 x 18 mm, 2-Zone (70/box, 1440/case)	XT114-SL	XT114-CL
Microchamber Slides, 25 x 25 mm (70/box, 1400/case)	XT108-SL	XT108-CL
Microchamber Slides, 25 x 40 mm (70/box, 1400/case)	XT134-SL	XT134-CL
Coverslips, 18 x 18 mm (175/box, 1750/case)	XT121-YBX	XT121-XBK
Coverslips, 25 x 25 mm (90/box, 900/case)	XT122-90X	XT122-YQK
Coverslips, 25 x 40 mm (50/box, 500/case)	XT118-50X	XT118-YRK

Pipette tips

BioGenex pipette tips are made of high-quality polypropylene and are RNase and heavy metals-free when untampered. Inner surface is extremely smooth and requires minimum wetting. 1 mL pipette tips are optimized for use on BioGenex Xmatrx® and i6000™ Staining Systems, while 200 µL tips are optimized for Xmatrx® staining systems.

Pipette tips for i6000™ & Xmatrx®

Product	1 Box	1 Case
Pipette Tips, 1 mL (192/box, 960/case)	XT105-01X	XT104-05X
Pipette Tips, 200 µL (960/box, 4800/case)	XT146-01X	XT145-05X

Consumables kits for Xmatrx®

Item	SKU	Size	Barrier Slides 25 x40 mm	Barrier Slides 25 x25 mm	Coverslips 25 x 40 mm	Coverslips 25 x 25 mm	1 mL Pipette Tips	200 µL Pipette Tips
IHC kit	XT148-YCDE	200 test	216	NA	1000	NA	384	960
ISH kit	XT144-YAD	100 test	NA	104	NA	900	384	960

Accessories

1. Antigen Retrieval Accessories Kits

The Antigen Retrieval Accessory Kit consists of slide holders and slide baths that make it convenient and compatible with any of the several Antigen Retrieval solutions. To accommodate microwave heating, the slide baths and slide holders are made of heat-stable thermoplastic polyolefin and hydrocarbon polymers of acetal resins. These accessories may be used in a microwave or a pressure cooker.

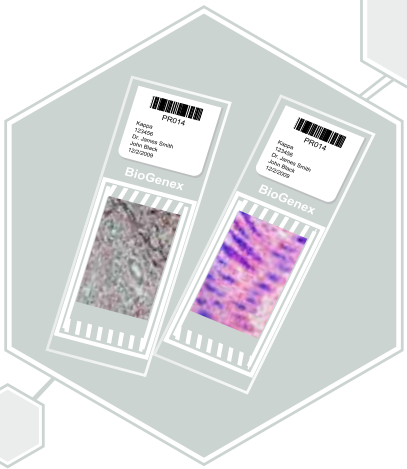
Item	SKU	Slide Bath + Lid	Slide Holder
24- Slide Accessory kit	MW001-SU	1	1 (24- slide capacity)
72- Slide Accessory kit	MW001-HB	3	3 (72- slide capacity)

2. NordicWare® Microwave Pressure Cooker

Placing the NordicWare®Microwave Pressure Cooker within a microwave is an effective method for enhancing staining with the Antigen Retrieval technique. The heat produced under enhanced pressure can reduce the build up of gas bubbles on the surface of tissues. This improves the intensity of staining, accompanied by preservation of tissue and cell morphology. This pressure cooker is also optimized for use with various BioGenex Antigen Retrieval solutions. BioGenex Catalog number: NW001-PC.

3. PAP pen for Tissue Staining

The PAP pen is a useful pen-like tool for immunohistochemical staining methods. It is designed to prevent the waste of valuable reagents by forming a water-repellent barrier around the specimen. This barrier creates the proper surface tension to hold an antibody solution or detection reagents within the target area on the slide. The surface tension provided by the PAP Pen circle ensures that only the amount of antibody solution needed for sufficient reaction will be applied. Since over-flooding of the slide is eliminated, wiping of excess fluid around the specimen can be avoided. The PAP pen can be used for immunostaining of paraffin sections, frozen sections, and for fluorescent antibody methods. The PAP pen contains a special formulation, which is water repellent. It can be removed, if desired, with xylene or xylene substitutes after the staining procedure is completed.



Tissue Control

Positive Control Slides and Barrier Slides

Positive control slides are made with tissue which has undergone processing identical to that of the test tissue. BioGenex provides positive control slides that enable one to confirm antibody reactivity.

Barrier slides are positive control tissue slides with barriers to prevent loss of reagent.

Pack Size: Positive Control slides (5 slides per pack)
Barrier slides (5 slides per pack)

Antibody	Clone	Recommended Positive Control	Control Slides Cat. No	Barrier Slides Cat. No
ABCC3	Polyclonal	COLON CA	FG-800P	FB-800P
Aberrant Endothelial Cell	4A11	TONSIL	FG-382M	FB-382M
ACTH	AH26	Pituitary	FG-487M	FB-487M
Actin, Muscle-Specific	HHF35	MUSCLE	FG-090M	FB-090M
Actin; Smooth Muscle	1A4	STOMACH	FG-128M	FB-128M
Adenovirus	A62020069P	BION SLIDE	FG-059ME	FB-059ME
ALK/p80	SP8	ADENO CA	FG-770N	FB-770N
Alpha-1-Antichymotrypsin	a1A88	LIVER CA	FG-388M	FB-388M
Alpha-1-Antitrypsin	Polyclonal	HEPATOCELLULAR CA	FG-015P	FB-015P
Alpha-Actinin	JLN20	MUSCLE	FG-097M	FB-097M
Alpha-Fetoprotein (AFP)	C3	HEPATOCELLULAR CA	FG-008M	FB-008M
Alpha-Tubulin	DM-1A	LUNG	FG-121M	FB-121M
Anaplastic Lymphoma Kinase (ALK)	SP144	ANAPLASTIC LYMPHOMA	FG-874N	FB-874N
Androgen Receptor	F39.4.1	PROSTATE HYPER	FG-256ME	FB-256ME
B Cell	MB2	TONSIL	FG-158M	FB-158M
B Lymphocyte Antigen 36; BLA-36	A27-42	HODGKIN	FG-231M	FB-231M
Basic Fibroblast Growth Factor (bFGF)	bFGF88	ADENO CA	FG-359M	FB-359M
Bax Protein	Polyclonal	BREAST CA	FG-347P	FB-347P
BCL-2	EP36	BREAST CA	FG-723N	FB-723N
bcl-2 Oncoprotein	bcl-2/100	TONSIL	FG-287M	FB-287M
BCL-2	SP66	TONSIL	FG-758N	FB-758N
BCL-6	LN22	TONSIL	FG-708M	FB-708M
Bcl-x	EP94	TONSIL	FG-819N	FB-819N
BCR-ABL	7C6	Ca. Liver	FG-903ME	FB-903ME
Beta-Catenin	EP35	BREAST	FG-778N	FB-778N
Beta-Tubulin	DM-1B	LUNG	FG-122M	FB-122M
Beta-Tubulin II	JDR3B8	COLON	FG-176M	FB-176M
Beta-Tubulin III	SDL3D10	HEART	FG-177M	FB-177M
Beta-Tubulin IV	ONS1A6	LUNG	FG-178M	FB-178M
Blood Group Antigen Lewis B	2-25LE	STOMACH	FG-304M	FB-304M
BRCA1 Protein	Polyclonal	BREAST CA	FG-345P	FB-345P
Breast Cancer Antigen (BCA) 225	CU18	BREAST CA	FG-135M	FB-135M
CA 125	Ov185:1	OVARY CA	FG-429M	FB-429M
CA 19-9	C241:5:1:4	COLON	FG-424M	FB-424M
Caldesmon	EP19	UTERUS	FG-774N	FB-774N
Caldesmon HMW, Smooth muscle	h-CD	LEIOMYOMA	FG-332M	FB-332M

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Antibody	Clone	Recommended Positive Control	Control Slides Cat. No	Barrier Slides Cat. No
Calponin	CALP	BREAST CA	FG-333M	FB-333M
Calponin-1	EP63	PLEOMORPHIC AD-ENOMA	FG-821N	FB-821N
Calretinin	Polyclonal	CEREBRUM, CORTEX	FG-413P	FB-413P
Calretinin	2E+7	Cerebellum	FG-583M	FB-583M
Calretinin	SP13	MESOTHELIOMA	FG-747N	FB-747N
Carcinoembryonic Antigen (CEA)	B01-94-11M-P	COLON CA	FG-009M	FB-009M
Carcinoembryonic Antigen (CEA)	Polyclonal	COLON CA	FG-009P	FB-009P
Carcinoembryonic Antigen (CEA)	CEA88	COLON CA	FG-365M	FB-365M
Catenin Delta 1 (P120)	Polyclonal	BREAST CA	FG-706P	FB-706P
Cathepsin D	C15	BREAST CA	FG-467M	FB-467M
CD10	56C6	KIDNEY	FG-451M	FB-451M
CD103	EP206	COLON CA	FG-739NE	FB-739NE
CD105	4G11	UTERUS	FG-441M	FB-441M
CD117	T595	STOMACH	FG-423M	FB-423M
CD117/c-Kit/SCF-Receptor	Polyclonal	GIST	FG-759P	FB-759P
CD11b/ITAM	M01	FROZEN TONSIL	FG-270M	FB-270M
CD11b/ITAM	EP45	SPLEEN	FG-851N	FB-851N
CD11c	EP157	TONSIL	FG-822N	FB-822N
CD13	EP117	LYMPHOMA	FG-832N	FB-832N
CD138	EP201	TONSIL	FG-837N	FB-837N
CD14	EP128	TONSIL	FG-814N	FB-814N
CD146	EP54	PLACENTA	FG-716N	FB-716N
CD15 (Blood group antigen Lewis X)	BRA4F1	HODGKIN	FG-302M	FB-302M
CD16	2H7	LYMPH NODE	FG-437M	FB-437M
CD16a	SP189	TONSIL/LUNG	FG-749N	FB-749N
CD16a	SP175	TONSIL	FG-762N	FB-762N
CD19	EP169	TONSIL	FG-729N	FB-729N
CD1a	010	LYMPH NODE	FG-490M	FB-490M
CD2	AB75	LYMPHOMA	FG-438M	FB-438M
CD20	CD20/C23	SPLEEN	FG-537M	FB-537M
CD20 (B cell)	L-26	TONSIL	FG-238M	FB-238M
CD205	EP176	TONSIL	FG-737NE	FB-737NE
CD21	SP186	TONSIL	FG-745NE	FB-745NE
CD21	EP64	TONSIL	FG-825N	FB-825N
CD22	FPC1	TONSIL	FG-439M	FB-439M
CD227 (MUCIN 1)	VU-4H5	MUCINOUS ADENO CA	FG-534M	FB-534M
CD23	Polyclonal	LYMPH NOSE	FG-460P	FB-460P
CD27	Polyclonal	Tonsil	FG-912PE	FB-912PE
CD3 (T cell)	UCHT1	FROZEN TONSIL	FG-258M	FB-258M
CD3 (T Cell)	PS1	TONSIL	FG-322M	FB-322M
CD3 (T Cell)	EP41	LYMPHOMA	FG-846N	FB-846N
CD30 (Ki-1 Antigen)	Ber-H2	HODGKIN	FG-327M	FB-327M
CD31 (Endothelial Cell)	JC/70A	COLON CA	FG-232M	FB-232M

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Antibody	Clone	Recommended Positive Control	Control Slides Cat. No	Barrier Slides Cat. No
CD31 (PECAM-1)	9G11	TONSIL	FG-241M	FB-241M
CD34 (Endothelial Cell)	QBend/10	COLON CA	FG-236M	FB-236M
CD34 (Endothelial Cell)	EP88	COLON CA	FG-779N	FB-779N
CD35	RLB25	TONSIL	FG-431M	FB-431M
CD35	SP191	TONSIL	FG-741NE	FB-741NE
CD38	SP149	TONSIL	FG-769N	FB-769N
CD4	4B12	TONSIL	FG-421M	FB-421M
CD4	EP204	TONSIL	FG-722N	FB-722N
CD40	CL1673	Tonsil	FG-913ME	FB-913ME
CD41/Integrin	EP178	SPLEEN CA	FG-732NE	FB-732NE
CD43 & CD45RA Cocktail	MT1 & MB1	TONSIL	FG-159M	FB-159M
CD43 (T Cell, Leukosialin)	DFT-1	TONSIL	FG-305M	FB-305M
CD43 (T Cell, Leukosialin)	SP55	TONSIL	FG-748N	FB-748N
CD44 (Phagocytic Glycoprotein-1, HCAM)	DF1485	TONSIL	FG-310M	FB-310M
CD45 (Leukocyte common Antigen, LCA)	PD7/26/16 & 2B11	TONSIL	FG-111M	FB-111M
CD45 (Leukocyte common Antigen, LCA)	LJ27.9	TONSIL	FG-338M	FB-338M
CD45 Cocktail (Leukocyte Antigen, LCA)	MEM55+LJ27.9	TONSIL	FG-371M	FB-371M
CD45RA (B cell)	MB1	TONSIL	FG-157M	FB-157M
CD45RC (T Cell)	MT2	TONSIL	FG-156M	FB-156M
CD45RO (T Cell)	UCHL-1	TONSIL	FG-113M	FB-113M
CD48	EP148	TONSIL	FG-721NE	FB-721NE
CD5	4C7	TONSIL	FG-430M	FB-430M
CD5	EP77	TONSIL	FG-824N	FB-824N
CD53	EP179	TONSIL	FG-734N	FB-734N
CD56 (Natural Killer Cell, NCAM)	NKH-1	FROZEN TONSIL	FG-268M	FB-268M
CD57 (Natural Killer Cell)	NK-1	TONSIL	FG-314M	FB-314M
CD63	EP211	PROSTATE/MELANOMA	FG-720NE	FB-720NE
CD66	BY114	TONSIL	FG-325M	FB-325M
CD68	KP1	LYMPH NODE	FG-416M	FB-416M
CD68	CD68/G2	HISTIOCYTOMA	FG-549M	FB-549M
CD7	LP15	Tonsil	FG-702M	FB-702M
CD7	SP94	TONSIL	FG-761N	FB-761N
CD71 (transferrin Receptor)	T9	FROZEN TONSIL	FG-269M	FB-269M
CD71 (transferrin Receptor)	H68.4	BONE MARROW	FG-354M	FB-354M
CD73	1D7	Tonsil	FG-904ME	FB-904ME
CD74 (B cell)	LN2	TONSIL	FG-153M	FB-153M
CD79a	11E 3	TONSIL	FG-414M	FB-414M
CD79a	EP82	LYMPH NODE	FG-719N	FB-719N
CD79a	SP18	TONSIL	FG-767N	FB-767N
CD8	T8	FROZEN TONSIL	FG-261M	FB-261M
CD8	1A5	Tonsil	FG-422M	FB-422M
CD8	SP16	TONSIL	FG-740N	FB-740N
CD82	EP160	ADENO CA	FG-757N	FB-757N
CD95	EP208	TONSIL	FG-742NE	FB-742NE

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Antibody	Clone	Recommended Positive Control	Control Slides Cat. No	Barrier Slides Cat. No
CD99	HO36.1.1	EWINGS SARCOMA	FG-355M	FB-355M
CD99	EP8	EWING'S SARCOMA	FG-850N	FB-850N
CDK1	A17.1.1	Tonsil	FG-905ME	FB-905ME
CDK2	SP80	Tonsil	FG-906NE	FB-906NE
CDK9	K.513.1	Ca. Cervix	FG-908NE	FB-908NE
CDX-2	CDX2-88	COLON	FG-392M	FB-392M
CEACAM1	Polyclonal	Ca. Colon	FG-909PE	FB-909PE
c-erbB-2 (HER-2/neu)	SP101	BREAST CA	FG-752NE	FB-752NE
c-erbB-2 (HER-2/neu)	SP3	BREAST CA	FG-753NE	FB-753NE
c-erbB-2 (Her-2/neu)	CB11	BREAST CA	FG-134ME	FB-134ME
c-erbB-3 (HER-3)	RTJ1/A2	BREAST CA	FG-319M	FB-319M
Chromogranin A	LK2H10	PANCREAS	FG-126M	FB-126M
Chromogranin A	PHE-5	PANCREAS	FG-356M	FB-356M
c-Kit / CD117	EP10	STOMACH	FG-818NE	FB-818NE
Claudin-5	EP224	LUNG SQUAMOUS CA	FG-718N	FB-718N
c-myc Protein	9E+10	ADENO CA	FG-318M	FB-318M
Collagen III	HWD1.1	SKIN	FG-167M	FB-167M
Collagen IV	COL-94	SKIN	FG-379M	FB-379M
Cyclin D1	Polyclonal	BREAST CA	FG-447P	FB-447P
Cyclin D1	EP12	BREAST CA	FG-815N	FB-815N
Cyclin E1	EP126	PLACENTA	FG-854N	FB-854N
Cytokeratin 10	DEK-10	SKIN	FG-201M	FB-201M
Cytokeratin 13	AE8	TONSIL	FG-132M	FB-132M
Cytokeratin 14	LL002	SQUAMOUS CELL CA	FG-146M	FB-146M
Cytokeratin 14	EP61	PROSTATE	FG-831N	FB-831N
Cytokeratin 15	EP14	SQUAMOUS	FG-855N	FB-855N
Cytokeratin 18	DC-10	BREAST CA	FG-143M	FB-143M
Cytokeratin 19	RCK108	COLON CA	FG-246M	FB-246M
Cytokeratin 20	IT-Ks20.8	COLON CA	FG-315M	FB-315M
Cytokeratin 20	EP23	COLON CA	FG-849N	FB-849N
Cytokeratin 4	EP4	ESOPHAGUS	FG-717N	FB-717N
Cytokeratin 5	EP24	MESOTHELIOMA	FG-847N	FB-847N
Cytokeratin 5	EP42	CERVICAL CA	FG-853N	FB-853N
Cytokeratin 5 + Cytokeratin 14	EP24 + EP61	PROSTATE	FG-730NE	FB-730NE
Cytokeratin 6	EP67	CERVICAL	FG-845N	FB-845N
Cytokeratin 7	OV-TL12/30	BREAST CA	FG-255M	FB-255M
Cytokeratin 7 & 8	OV-TL12/30 & C51	BREAST CA	FG-587M	FB-587M
Cytokeratin 8	C51	BREAST CA	FG-142M	FB-142M
Cytokeratin 8 &18	5D3	COLON CA	FG-131M	FB-131M
Cytokeratin Cocktail	AE1 & AE3	SKIN	FG-071M	FB-071M
Cytokeratin cocktail, broad spectrum		SKIN, BREAST CA	FG-273M	FB-273M

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Antibody	Clone	Recommended Positive Control	Control Slides Cat. No	Barrier Slides Cat. No
Cytokeratin cocktail, broad spectrum	LL002+DEK-10+RCK108+OV-TL12/30+C11	BREAST CA	FG-372M	FB-372M
Cytokeratin HMW (Basic)	AE3	SQUAMOUS CELL CA	FG-133M	FB-133M
Cytokeratin, High MW		PROSTATE	FG-291M	FB-291M
Cytokeratin, Low MW	AE1	BREAST CA	FG-075M	FB-075M
Cytokeratin, Pan	Lu-5	COLON CA	FG-181M	FB-181M
Cytokeratin, Pan	C11	BREAST CA	FG-357M	FB-357M
Cytoteratin 5&6	EP24 & EP67	Cervical Cancer	FG-892N	FB-892N
Desmin	D33	LEIOMYMA	FG-072M	FB-072M
DOG1	1.1	Gist	FG-570M	FB-570M
Dystrophin	Dys1 (Dy4/6D3)	MUSCLE	FG-243M	FB-243M
Dystrophin	Dys2 (Dy8/6C5)	MUSCLE	FG-244M	FB-244M
E-Cadherin	36	COLON CA	FG-390M	FB-390M
E-Cadherin	EP6	BREAST CA	FG-725N	FB-725N
EGFR	Polyclonal	SQUAMOUS CA	FG-335PE	FB-335PE
EGFR	EP22	LUNG SQUAMOUS CA	FG-781NE	FB-781NE
Ep-CAM	EP155	ADENOMA	FG-820N	FB-820N
Epithelial Membrane Antigen (EMA)	E29	LUNG	FG-057M	FB-057M
Epithelial Membrane Antigen (EMA)	Mc5	BREAST CA	FG-182M	FB-182M
Epithelial Specific Antigen	MOC-31	COLON CA	FG-316M	FB-316M
Epstein-Barr Virus (EBV) Early Antigen	1108-1	BION SLIDE	FG-222ME	FB-222ME
ERG, Ets-Related Gene	EP111	PROSTATE	FG-782N	FB-782N
Estradiol	Polyclonal	BREAST CA	FG-038P	FB-038P
Estrogen Receptor (ER) Alpha	EP1	BREAST CA	FG-710NE	FB-710NE
Estrogen Receptor, ER (InSite®)	ER88	Breast Ca	FG-368M	FB-368M
Factor VIII-Related Antigen	F8 2.2.9	LEIOMYOMA	FG-016M	FB-016M
Factor XIIIa	E980.1	PLACENTA	FG-337M	FB-337M
Fascin	FCN01	LYMPH NODE	FG-488M	FB-488M
FLI1	Polyclonal	EWING'S SARCOMA	FG-798P	FB-798P
Gastrin	Polyclonal	STOMACH	FG-019P	FB-019P
GCDFP-15	EP95	BREAST CA	FG-856N	FB-856N
GITR	Polyclonal	Tonsil/Spleen	FG-915PE	FB-915PE
Glial Fibrillary Acidic Protein (GFAP)	GA-5	CEREBELLUM	FG-020M	FB-020M
Glial Fibrillary Acidic Protein (GFAP)	EP13	CEREBELLUM	FG-783N	FB-783N
Glomerular Epithelial Protein 1 (GLEPP-1)	5C11	KIDNEY	FG-336M	FB-336M
Glucagon	Polyclonal	PANCREAS	FG-039P	FB-039P
Glutathione S-Transferase Pi (GST Pi)	Polyclonal	BREAST	FG-249P	FB-249P
Glycophorin A + B	E3	PLACENTA	FG-889M	FB-889M
Glypican-3 (GPC3)	GPC3-88	Hepatocellular Ca	FG-539M	FB-539M
Granulocyte	BM-2	Hodgkin	FG-210M	FB-210M
H.Pylori	ULC3R	STOMACH	FG-880ME	FB-880ME
Heat Shock Protein 27 (HSP 27)	G3.1	BREAST CA	FG-171M	FB-171M
Heat Shock Protein 70 (HSP 70)	BRM-22	BREAST CA	FG-289M	FB-289M

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Antibody	Clone	Recommended Positive Control	Control Slides Cat. No	Barrier Slides Cat. No
Hepatitis B Virus Core Antigen (HBcAg)	Polyclonal	HEPATITIS	FG-082PE	FB-082PE
Her2/ErbB2	EP3	Breast Ca	FG-726NE	FB-726NE
Herpes Simplex Virus Type I (HSV I)	Polyclonal	HSV INF. CULTURE	FG-084PE	FB-084PE
Herpes Simplex Virus Type II (HSV II)	Polyclonal	HSV INF. CULTURE	FG-085PE	FB-085PE
HLA-DR	LN3	TONSIL	FG-154M	FB-154M
HSA	HSA/E8	LIVER	FG-550M	FB-550M
Human Chorionic Gonadotropin (hCG) Beta	M94138	PLACENTA	FG-395M	FB-395M
human Growth Hormon (hGH)	Polyclonal	PLACENTA	FG-707P	FB-707P
IDO	4D2	Tonsil/Spleen	FG-916ME	FB-916ME
IgA	Polyclonal	TONSIL	FG-045P	FB-045P
IgD	Polyclonal	TONSIL	FG-440P	FB-440P
IgG	Polyclonal	TONSIL	FG-050P	FB-050P
IgM	IgM88	TONSIL	FG-366M	FB-366M
Inhibin-Alpha	R1	OVARY	FG-446M	FB-446M
Insulin	HB125	PANCREAS	FG-029M	FB-029M
Insulin	EP125	PANCREAS	FG-735N	FB-735N
J chain	JC88	TONSIL, LYMPH NODE	FG-374M	FB-374M
J chain	SP105	TONSIL	FG-756N	FB-756N
Kappa Light Chain	K88	Tonsil	FG-369M	FB-369M
Ki-67	MIB-1	LYMPHOMA, LYMPH NODE, TONSIL	FG-297M	FB-297M
Ki-67	K-2	TONSIL	FG-410M	FB-410M
Ki-67	EP5	Lymphoma, Lymph Node, Tonsil	FG-727N	FB-727N
Ki-67 + Lambda Light Chain	K-2 + Polyclonal	TONSIL	N/A	N/A
KRAS	Polyclonal	COLON CA	FG-751P	FB-751P
LAG3	Polyclonal	Tonsil	FG-917PE	FB-917PE
Lambda Light Chain	Polyclonal	TONSIL	FG-049P	FB-049P
Lambda light chain	EP172	Tonsil	FG-715N	FB-715N
Lambda Light Chain	SP147	TONSIL	FG-763N	FB-763N
Luteinizing Hormone (LH)	SP132	PITUITARY	FG-787N	FB-787N
Lysozyme	Polyclonal	LYMPH NODE	FG-024P	FB-024P
Macrophage	LN5	LIVER	FG-165M	FB-165M
Mast Cell Tryptase	AA1	SKIN	FG-419M	FB-419M
MCM2	SP85	CERVICAL CA	FG-773N	FB-773N
MCM2	EP40	TONSIL	FG-834N	FB-834N
Melan-A (MART-1)	A103	MELANOMA	FG-361M	FB-361M
Melanoma	HMB45	MELANOMA	FG-001M	FB-001M
Cytokeratin 5 + Cytokeratin 14	EP24 + EP61	PROSTATE	FG-730N	FB-730N
CD41/Integrin	EP178	SPLEEN CA	FG-732N	FB-732N
Mesothelin	5B2	OVARYADENOMA	FG-433M	FB-433M
MiTF	MiTF/A13	MELANOMA	FG-554M	FB-554M
Mitochondrial Antigen	113-1	LIVER	FG-213M	FB-213M

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MLH1	ES05	COLON	FG-703M	FB-703M
CD205	EP176	TONSIL	FG-737N	FB-737N
MSH2	SP46	COLON CA	FG-743N	FB-743N
CD103	EP206	COLON CA	FG-739N	FB-739N
MSH6	2D4B5	Colon Ca	FG-454M	FB-454M
CD35	SP191	TONSIL	FG-741N	FB-741N
CD95	EP208	TONSIL	FG-742N	FB-742N
Mucin 1 (MUC1)	EP85	BREAST	FG-813N	FB-813N
Mucin 2 (MUC2)	CCP58	COLON CA	FG-358M	FB-358M
CD21	SP186	TONSIL	FG-745N	FB-745N
Mum/IRF4	SP114	HODGKINS	FG-750N	FB-750N
Myelin Basic Protein	MBP88	CEREBELLUM	FG-380M	FB-380M
Progesterone Receptor (PR)	BM-1	LYMPH NODE	FG-164M	FB-164M
Myeloid Specific Antigen	BM-3	LYMPH NODE	FG-216M	FB-216M
Myeloperoxidase (MPO)	Polyclonal	SPLEEN	FG-496P	FB-496P
c-erbB-2 (HER-2/neu)	SP3	BREAST CA	FG-753N	FB-753N
Myoglobin	MG-1	MUSCLE	FG-012M	FB-012M
Myoglobin	Polyclonal	MUSCLE	FG-012P	FB-012P
Myosin Heavy Chain, Smooth Muscle	SMMS.1	BREAST	FG-331M	FB-331M
Myosin, Skeletal Muscle	MY-32	MUSCLE	FG-109M	FB-109M
Napsin A	IP64	LUNG / ADENO CA	FG-701M	FB-701M
Neurofilament	NE-14	NERVE	FG-073M	FB-073M
Neuron Specific Enolase	MIG-N3	NERVE	FG-055M	FB-055M
Oct-2	EP115	TONSIL	FG-830N	FB-830N
Oct-4	EP143	TESTIS	FG-724N	FB-724N
Osteonectin	OST1	OSTEOSARCOMA	FG-387M	FB-387M
p120 (Catenin delta 1)	SP63	BREAST	FG-760N	FB-760N
p16 + Ki67	G175-405 + EPR3611	CERVICAL CA	FG-601C	FB-601C
p27 (Kip1)	DCS72	BREAST	FG-396M	FB-396M
p27 (Kip1)	EP104	BREAST	FG-817N	FB-817N
P504S (AMACR)	13H4	PROSTATE CA	FG-449NE	FB-449NE
P504S (AMACR)	RBT-AMACR	PROSTATE CA	FG-538N	FB-538N
EGFR	EP22	LUNG SQUAMOUS CA	FG-781N	FB-781N
Myogenin	EP162	RHABDOMYSARCOMA	FG-789N	FB-789N
p53 Protein	BP53-12-1	BREAST CA	FG-195M	FB-195M
p53 Protein	DO7	BREAST CA.	FG-239M	FB-239M
p53 Protein	1801	Breast Ca	FG-240M	FB-240M
P63	4A4	PROSTATE HYPER	FG-418M	FB-418M
Papillomavirus Type 16 (HPV-16)	Cam Vir-1	HPV INF	FG-362ME	FB-362ME
Pax-5	ZP007	TONSIL	FG-457M	FB-457M
Paxillin	EP89	BREAST CA	FG-876N	FB-876N
PDCD4	EP102	COLON CA	FG-875N	FB-875N
c-Kit / CD117	EP10	STOMACH	FG-818N	FB-818N

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Placental Alkaline Phosphatase (PLAP)	PL8-F6	PLACENTA	FG-228M	FB-228M
Placental Lactogen (hPL)	Polyclonal	PLACENTA	FG-040P	FB-040P
Platelet-Derived Growth Factor (PDGF)	PDGF88	SQUAMOUS CA	FG-376M	FB-376M
Platelet-Derived Growth Factor (PDGF)	Polyclonal	SQUAMOUS CA	FG-376P	FB-376P
PMS2	EP51	COLON CA	FG-844NE	FB-844NE
Progesterone Receptor	1A6	BREAST CA	FG-172ME	FB-172ME
Progesterone Receptor (PR)	EP2	BREAST CA	FG-711NE	FB-711NE
Progesterone Receptor, PR (InSite®)	PR88	Breast CA	FG-328M	FB-328M
Prolactin	ME.121	Pituitary	FG-031M	FB-031M
Proliferating Cell Nuclear Antigen (PCNA)	PC10	COLON CA	FG-252M	FB-252M
Prostate Specific Acid Phosphatase	B01-94-21M-NA	PROSTATE HYPER	FG-013ME	FB-013ME
pS2 Estrogen Inducible Protein	PS2.1	BREAST CA	FG-190M	FB-190M
PSMA	EP192	PROSTATE	FG-714N	FB-714N
PSMA	SP29	PROSTATE CA	FG-768N	FB-768N
PMS2	EP51	COLON CA	FG-844N	FB-844N
PU.1	EP18	LYMPHOMA	FG-843N	FB-843N
Renal Cell Carcinoma (RCC)	RCC-26	RENAL CELL CARCI-NOMA	FG-543M	FB-543M
S100 Beta	EP32	MELANOMA	FG-713N	FB-713N
S-100 Protein	Polyclonal	MELANOMA	FG-058P	FB-058P
S100P	EP186	MELANOMA	FG-712N	FB-712N
Secretin	Polyclonal	STOMACH	FG-067P	FB-067P
SLAMF7	Polyclonal	Tonsil	FG-920PE	FB-920PE
SOX2	Polyclonal	UTERUS CERVIX	FG-788P	FB-788P
SOX2	EP103	SQUAMOUS	FG-833N	FB-833N
Substance P	Polyclonal	HYPOTHALAMUS	FG-069P	FB-069P
Survivin	EP119	BLADDER	FG-826N	FB-826N
Synaptophysin	Snp88	PANCREAS	FG-363M	FB-363M
H.Pylori	ULC3R	STOMACH	FG-880M	FB-880M
Tau	Tau-5	CEREBELLUM	FG-459M	FB-459M
TdT	EP266	Thymus	FG-881N	FB-881N
Thyroglobulin	2H11	FOLLICULAR ADENOMA	FG-032M	FB-032M
Thyroid Stimulating Hormone (TSH)	5404	Pituitary	FG-033M	FB-033M
PD-L1	29E.2A3	Tonsil	FG-919M	FB-919M
BCR-ABL	7C6	Ca. Liver	FG-903M	FB-903M
CD27	Polyclonal	Tonsil	FG-912P	FB-912P
CD40	CL1673	Tonsil	FG-913M	FB-913M
CD73	1D7	Tonsil	FG-904M	FB-904M
CDK1	A17.1.1	Tonsil	FG-905M	FB-905M
CDK2	SP80	Tonsil	FG-906N	FB-906N
CDK9	K.513.1	Ca. Cervix	FG-908N	FB-908N
CEACAM1	Polyclonal	Ca. Colon	FG-909P	FB-909P
CSF-1R	SP211	Tonsil	FG-914N	FB-914N

NOTE: The list for positive control slides is constantly being updated, depending upon tissue availability. Please call 1(800) 421-4149 for availability or visit our website at www.biogenex.com

Antibody	Clone	Recommended Positive Control	Control Slides Cat. No	Barrier Slides Cat. No
GITR	Polyclonal	Tonsil/Spleen	FG-915P	FB-915P
IDO	4D2	Tonsil/Spleen	FG-916M	FB-916M
LAG3	Polyclonal	Tonsil	FG-917P	FB-917P
SLAMF7	Polyclonal	Tonsil	FG-920P	FB-920P
ZAP-70	ZAP70-C3	TONSIL	FG-544M	FB-544M
ZAP-70	EP52	TONSIL	FG-852N	FB-852N
MMP-9	EP127	BONE MARROW	FG-816N	FB-816N
Synaptophysin	EP158	PANCREAS	FG-857N	FB-857N

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- Any dispute arising out of or related to this Agreement shall be resolved solely in the U.S. District Court for the Northern District of California or in San Francisco County, and in no other courts, and Customer hereby consents to the jurisdiction of, venue in and service of process from the aforementioned courts.

Listing by Categories

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CD13	EP117(R)	17, 46, 70, 197
CD34 (Endothelial Cell)	QBend/10(M)	18, 47, 75, 197
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MCM2	SP85(R)	23, 51, 119, 201
Myeloperoxidase (MPO)	Polyclonal(R)	23, 51, 125, 202
ADHESION MOLECULES		
CD27	Polyclonal(R)	18, 46, 73
Beta-Catenin	EP35(R)	17, 45, 59, 196
CD138	EP201(R)	17, 46, 86, 197
CD22	FPC1(M)	18, 46, 73, 197
CD31 (PECAM-1)	9G11(M)	18, 47, 75, 197
CD44 (Phagocytic Glycoprotein-1,HCAM)	DF1485(M)	18, 47, 77, 198
E-Cadherin	36(M)	21, 49, 101, 196
E-Cadherin	EP6(R)	21, 49, 101, 196
Ep-CAM	EP155(R)	21, 49, 102, 200
ADRENAL TUMORS		
CD56 (Natural Killer Cell,NCAM)	NKH-1(M)	19, 47, 80, 198
Inhibin-Alpha	R1(M)	22, 50, 114, 201
Steroidogenic Factor 1	NR5A1/3397	
Synaptophysin	Snp88(M)	25, 53, 142, 203
Synaptophysin	EP158(R)	25, 53, 142, 203
AMYLOID		
Kappa Light Chain	L1C1(M)	22, 50, 115, 201
Kappa Light Chain	K88(M)	22, 50, 115, 201
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Lambda Light Chain	EP172(R)	22, 51, 117, 201
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CD44 (Phagocytic Glycoprotein-1,HCAM)	DF1485(M)	18, 47, 77, 198
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Cytokeratin 20	IT-Ks20.8(M)	20, 48, 97, 199
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Ki-67 Antigen, Proliferating Cell	Ki88(M)	22, 50, 116, 201
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p53 Protein	DO7(M)	24, 52, 131, 202
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Blood Group Antigen Lewis A	7LE(M)	17, 45, 61, 196
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Epithelial Membrane Antigen (EMA)	Mc5(M)	21, 49, 102, 200
Follicle Stimulating Hormone (FSH)	Polyclonal(R)	49, 105, 200
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Human Chorionic Gonadotropin (hCG) Beta	M94138(M)	22, 50, 112, 201
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Luteinizing Hormone	SP132(R)	23, 51, 118, 201
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Bax Protein	Polyclonal(R)	16, 45, 58, 196
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Bcl-2 Oncoprotein	Bcl-2/100(M)	16, 45, 58, 196
BRCA1 Protein	Polyclonal(R)	17, 45, 61, 196
Breast Cancer Antigen BCA 225	CU18(M)	17, 45, 62, 196
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Calponin	CALP(M)	17, 45, 63, 196
Calponin-1	EP63(R)	17, 45, 63, 196
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CD227 (MUCIN 1)	VU-4H5(M)	18, 46, 73, 197
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c-erbB-3 (HER-3)	RTJ1/A2(M)	19, 48, 89, 199
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Cytokeratin 5	EP42(R)	20, 49, 93, 199
Cytokeratin 6	EP67(R)	20, 49, 94, 199
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Cytokeratin 7 & 8	OV-TL12/30 & C51(M)	20, 49, 94, 199
Cytokeratin 8	C-51(M)	20, 49, 95, 199
Cytokeratin 14	EP61(R)	20, 48, 96, 199
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E-Cadherin	36(M)	21, 49, 101, 196
EGFR	EP22(R)	21, 49, 102, 200
Estrogen Receptor	EP1(R)	21, 49, 104, 200
Estrogen Receptor (InSite® ER)	ER88(M)	21, 49, 104, 200
Fascin	FCN01(M)	21, 49, 105, 200
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MUC1	EP85(R)	23, 51, 121, 202
MUC4	1G8(M)	23, 51, 123
Mucin 2 (MUC2)	CCP58(M)	23, 51, 123, 202
Myosin Heavy Chains,Smooth Muscle	SMMS.1(M)	23, 51, 126, 202
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p53 Protein	BP53-12-1(M)	24, 52, 131, 202
p53 Protein	DO7(M)	24, 52, 131, 202
p53 Protein	1801(M)	24, 52, 131, 202
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Glomerular Epithelial Protein 1 (GLEPP-1)	5C11(M)	21, 50, 107, 200
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Myelin Basic Protein	MBP88(M)	23, 51, 124, 202
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Myoglobin	Polyclonal(R)	23, 51, 126, 202
Myosin,Skeletal Muscle	MY-32(M)	24, 51, 127, 202
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Carcinoembryonic Antigen (CEA)	CEA88(M)	17, 46, 64, 198
Carcinoembryonic Antigen (CEA)	Polyclonal(R)	17, 46, 64, 199
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c-myc Protein	9E 10(M)	20, 48, 90, 199
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Cytokeratin 19	RCK108(M)	20, 48, 97, 199
Cytokeratin 20	EP23	20, 48, 97, 199
Cytokeratin 20	IT-Ks20.8(M)	20, 48, 97, 199
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Ki-67 Antigen, Proliferating Cell	Ki88(M)	22, 50, 116, 201
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CDX-2	EP25(R)	19, 48, 87, 199
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p120 (Catenin delta 1)	SP63(R)	24, 52, 129, 202
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Aurora B	AURKB/1521	
C-myc	MYC/7854R	
NUT1	SNUPN/7363R	
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PMS2	PMS2/8224R	
PMS2	B-3	
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Carcinoembryonic Antigen (CEA)	Polyclonal(R)	17, 46, 64, 197
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HGH	Polyclonal(R)	22, 50, 109, 201
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Thyroid Stimulating Hormone (TSH)	Polyclonal(R)	25, 53, 143, 203
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CD34 (Endothelial Cell)	QBend/10(M)	18, 47, 75, 197
CD34	EP88(R)	18, 47, 75, 197
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Alpha-1-Antitrypsin	Polyclonal(R)	16, 45, 55, 196
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Cytokeratin, High MW (Basic)	AE3(M)	20, 49, 99
Cytokeratin, Low MW	AE1(M)	20, 49, 99, 200
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Mucin 2 (MUC2)	CCP58(M)	23, 51, 123, 202
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Carcinoembryonic Antigen (CEA)	CEA88(M)	17, 46, 64, 197
Carcinoembryonic Antigen (CEA)	Polyclonal(R)	17, 46, 64, 197
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CD117	T595(M)	17, 46, 86, 197
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c-erbB-2 (HER-2/neu)	EP3(R)	17, 48, 89, 199
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Cytokeratin 17	E27(M)	20, 48, 96, 199
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CD117	T595(M)	17, 46, 86, 197
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CD34 (Endothelial Cell)	QBend/10(M)	18, 47, 75, 197
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Hemoglobin A	Polyclonal(R)	22, 50, 110, 200
IgA	Polyclonal(R)	22, 50, 112, 201
IgD	Polyclonal(R)	22, 50, 113, 201
IgG	IgG88(R)	22, 50, 113, 201
IgG	Polyclonal(R)	22, 50, 113, 201
IgM	IgM88(M)	22, 50, 113, 201
IgM	Polyclonal(R)	22, 50, 113, 201
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CD15 (Blood group antigen Lewis X)	BRA4F1(M)	17, 46, 70, 197
CD30 (Ki-1 Antigen)	Ber-H2(M)	18, 46, 74, 197
CD30 (Ki-1 Antigen)	HRS-4(M)	18, 47, 74, 197
Coagulation Factor XIIIa	SP196(R)	20, 48, 91, 199
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Gastrin	Polyclonal(R)	21, 49, 106, 200
Heat Shock Protein (HSP-70)	BRM-22(M)	22, 50, 110, 200
Heat Shock Protein 27 (HSP 27)	G3.1(M)	22, 50, 110, 200
pS2 Estrogen Inducible Protein	PS2.1(M)	25, 52, 137, 203
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IgG	IgG88(R)	22, 50, 113, 201
IgM	IgM88(M)	22, 50, 113, 201
IgM	Polyclonal(R)	22, 50, 113, 201
J Chain	JC88(M)	22, 50, 115, 201
Kappa Light Chain	L1C1(M)	22, 50, 115, 201
Kappa Light Chain	K88(M)	22, 50, 115, 201
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Helicobacter pylori	ULC3R(M)	22, 50, 110, 200
Hepatitis B Virus Core Antigen (HBcAg)	Polyclonal(R)	22, 50, 111, 201
Herpes Simplex Virus Type I (HSV I)	Polyclonal(R)	22, 50, 111, 201
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Toxoplasma gondii	Polyclonal(R)	25, 53, 144,
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Glial Fibrillary Acidic Protein (GFAP)	GA-5(M)	21, 50, 107, 200
Glial Fibrillary Acidic Protein (GFAP)	Polyclonal(R)	21, 50, 107, 200
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