

Anti-Ki67 and lambda light chain cocktail

Catalog No.	Description
AC562-5M	6 ml of Ready-to-Use Antibody for use with BioGenex Super Sensitive™ Detection Systems OR equivalent detection system
AC562-10M	10 ml of Ready-to-Use Antibody in a barcode labeled vial for use with BioGenex Super Sensitive™ Detection Systems and i6000™ Automated Staining Systems
AC562-YCD	Ready-to-Use Antibody in Barcode labeled vial for use on the Xmatrx® Elite/Ultra Staining System, 160 tests
AC562-50D	Ready-to-Use Antibody in Barcode labeled vial for use on the Xmatrx® Elite/Ultra Staining System, 50 tests

Clone	Species	Ig Class
K-2 and rabbit polyclonal	Mouse & Rabbit	IgG + Polyclonal

Intended Use

For In Vitro Diagnostic Use. This antibody is designed for the specific localization of Ki67 and lambda light chain cocktail in formalin-fixed, paraffin-embedded (FFPE) tissue sections. Evaluation must be performed by a qualified pathologist.

Summary and Explanation

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 particularly useful 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. 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.

Storage and Handling

Store at 2-8°C. Fresh dilutions, if required, should be prepared prior to use and are stable and steady for up to one day at room temperature (20-26°C). Diluted antibody preparations can be refrigerated or frozen for extended shelf life.

Principles of the Procedure

Antigen detection by immunohistochemistry (IHC) is a two-step process wherein the primary antibody binds to the antigen of interest and that binding is detected by a chromogen. The [primary antibody](#) may be used in IHC using manual techniques or BioGenex Automated Staining System. Positive and negative controls should always be run simultaneously with all patient specimens.

Reagents Provided

Mouse Monoclonal & Rabbit Polyclonal Antibody to Ki67 and Lambda light chain is affinity purified and diluted in PBS, pH 7.2, containing 1% BSA and 0.09% sodium azide.

Dilution of Primary Antibody

BioGenex Ready-to-Use antibodies have been optimized for use with the recommended BioGenex Detection System and should not require further dilution.

BioGenex concentrated antibodies must be diluted in accordance with the recommended protocol when used with the recommended BioGenex Detection System.

Recommended Protocol

Refer to the following table for conditions specifically recommended for this antibody. Refer to the BioGenex website for guidance on specific staining protocols or other requirements.

Parameter	BioGenex Recommendations
Control Tissue	Tonsil tissues as available from BioGenex FB-562C* & FG-562C*
Recommended Dilution for Concentrated Antibody	N/A
Recommended Pretreatment (Manual/i6000)**	EZ-AR2 (HK522-XAK)
Recommended Pretreatment (Xmatrx)	EZ-AR2 Elegance (HX032-YCD)
Antibody Incubation (Manual/i6000)	30-60 mins at RT
Antibody Incubation (Xmatrx)	30-60 mins at RT
Detection System for Manual, Xmatrx & i6000 systems***	Use Xviz™ Double Staining Polymer Detection Kit I/DAB & Fast Red available from BioGenex (QS200-60K for Manual use and QS200-YAD for Automation). or Use Xviz™ Double Staining Polymer Detection Kit II/DAB & Fast Red available from BioGenex (QS400-60K for Manual use and QS400-YAD for Automation).

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*FB: positive control barrier slides, FG: positive control non-barrier slides. Xmatrx requires barrier slides.
**Pretreatment times will vary based on individual microwave power.
***For automation systems (Xmatrx-Elite, Xmatrx-Ultra & i6000 Diagnostics), refer to the factory protocols provided with the instrument.

- Dowsett M, et al. Breast Cancer Res 2009, 11(Suppl 3):S15.
- Kim D, et al. Clin Exp Otorhinolaryngol 2008, 1:206-210.

Precautions

This product contains sodium azide at concentrations of less than 0.1%. Sodium azide is not classified as a hazardous chemical at the product concentrations, but proper handling protocols should be observed. For more information, a Safety Data Sheet (SDS) for sodium azide is available upon request. Dispose of unused reagents according to Local, State and Federal Regulations. Wear suitable Personal Protective Equipment, do not pipette reagents by mouth, and avoid contact of reagents and specimens with skin and mucous membranes. If reagents or specimens come in contact with sensitive area, wash with copious amounts of water.

Quality Control

Refer to BioGenex detection system documents for guidance on general quality control procedures.

Troubleshooting

Refer to the troubleshooting section in the documentation for BioGenex Detection Systems (or equivalent detection systems) for remedial actions on detection system related issues, or contact BioGenex Technical Support Department at 1-800-421-4149 or support@biogenex.com or your local distributor to report unusual staining.

Expected Results

This antibody stains Ki67-Nucleus and Lambda Light Chain-Cytoplasm in positive cells in formalin-fixed, paraffin embedded tissue sections. An example image of a tissue section stained with this antibody can be found on the product page on the BioGenex website. Interpretation of the staining result is solely the responsibility of the user. Experimental results should be confirmed by a medically-established diagnostic product or procedure.

Limitations of the Procedure

Improper tissue handling and processing prior to immunostaining can lead to inconsistent results. Variations in embedding and fixation or the nature of the tissue may lead to variations in results. Endogenous peroxidase activity or pseudo peroxidase activity in erythrocytes and tissue biotin may result in non-specific staining based on the detection system employed. Tissues containing Hepatitis B Surface Antigen (HBsAg) may give false positive with horseradish peroxidase systems. Improper counterstaining and mounting may compromise the interpretation of results.

Bibliography

- Ioannou M, et al. Pathol Oncol Res 2009, 15:25-29.
- Talauikar D, et al. J Hematol Oncol 2009, 2:49.

	Temperature Limitation	IVD	In Vitro Diagnostic Medical Device
	Use By Date	LOT	Batch Code
	Non-Sterile		Consult Instructions for Use
	Representative in the European Community		Manufacturer

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