

Anti-Myosin, Skeletal Muscle [MY-32]

Catalog No.	Description	
AM109-5M	6 ml of Ready-to-Use Antibody for use with BioGenex Super Sensitive [™] Detection Systems OR equivalent detection system	
AM109-10M	10 ml of Ready-to-Use Antibody in a barcode labeled vial for use with BioGenex Super Sensitive TM Detection Systems and i6000 TM Automated Staining Systems	
MU109-UC	1 ml of Concentrated Antibody for use with BioGenex Super Sensitive TM Detection Systems OR equivalent detection system	
MU109-5UC	0.5 ml of Concentrated Antibody for use with BioGenex Super Sensitive TM Detection Systems OR equivalent detection system	
AX109-YCD	Ready-to-Use Antibody in Barcode labeled vial for use on the Xmatrx [®] EliteStaining System, 160 tests	
AX109-50D	Ready-to-Use Antibody in Barcode labeled	
AX109-4M	Ready-to-Use Antibody in Barcode labeled vial for use on the NanoVIP [®] Staining System, 50 tests	

Clone	Species	Ig Class
MY-32	Mouse	IgG1

Intended Use

For In Vitro Diagnostic Use. This antibody is designed for the specific localization of skeletal muscle myosin in formalin-fixed, paraffin-embedded (FFPE) tissue sections. Evaluation must be performed by a qualified pathologist.

Summary and Explanation

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 crossstriated 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.

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 (<u>IHC</u>) is a two-step process wherein the primary antibody binds to the antigen of interest and that binding is detected by a chromogen. The <u>primary</u> <u>antibody</u> 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 Antibody to skeletal muscle myosin protein antigen 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	Muscle as available with Biogenex FB-109M* & FG-109M*
Recommended Dilution for Concentrated Antibody	1:50-100 in HK156
Recommended Pretreatment (Manual/i6000)**	EZ-AR2 (HK522-XAK)
Recommended Pretreatment (Xmatrx & NanoVIP)	EZ-AR2 Elegance (HX032-YCD & HX046-08XN)
Antibody Incubation (Manual/i6000)	30-60 min at RT
Antibody Incubation (Xmatrx & NanoVIP)	30-60 min at 25°C
Detection System for Manual, Xmatrx, NanoVIP & i6000systems***	Use BioGenex Two-Step OR One-Step Super Sensitive [™] Polymer-HRP IHC Detection System/DAB; see p. 2 for more information

*FB: positive control micro chamber slides, FG: positive control microscopic slides. Xmatrx & NanoVIP require micro chamber slides.

Pretreatment times will vary based on individual microwave power. *For automation systems (Xmatrx-Elite, NanoVIP & i6000 Diagnostics), refer to the factory protocols provided with the instrument.

Category	Antibodies	Revision No.	J
Document No.	932-109M-EN	Release Date	11-May-2022



Detection	Two-Step	One-Step	Link and
System	HRP Kit	HRP Kit	Label Kit
Manual	QD440-XAKEN (1000 Test) QD430-XAKEN (1000 Test)	QD630-XAKEN (1000 Test)	QP300- XAKE (1000 Test)
Manual	QD420-YIKEN (500 Test) QD400-60KEN (60 Test)	QD620-XAKEN (500 Test)	QP900-9LE (500 Test)
Xmatrx -	QD490-YCDEN	QD610-YADEN	N/A
Automation	(200 Test)	(200 Test)	
NanoVIP-	QD551-YCDEN	QD611-YADEN	N/A
Automation	(100 Test)	(100 Test)	
i6000 -	QD410-YAXEN	QD610-YAXEN	N/A
Automation	(200 Test)	(200 Test)	
For more information, visit <u>www.biogenex.com</u> .			

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 <u>support@biogenex.com</u> or your local distributor to report unusual staining.

Expected Results

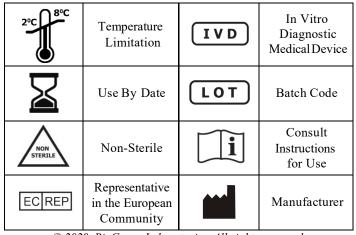
This antibody stains cytoplasm in positive cells in formalinfixed, paraffin embedded tissue sections. An example image of a tissue section stained with this antibody can be found on the product page on the BioGenex website. Interpretation of the staining result is solely the responsibility of the user. Experimental results should be confirmed by a medicallyestablished 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

- 1. Spudich JA, et al. Cold Spring Harbor Symp Quant Biol 46:553-561, 1982.
- 2. Mukai K et al. Am J Surg Pathol 5:91-97, 1981.
- 3. Pertschuk LP.Am J Clin Pathol 63:332-342, 1975.
- 4. Bussolati G. Virchows Arch (Cell Pathol) 32:165-176, 1980.
- Center for Disease Control. Decontamination of Laboratory Sink Drains to Remove Azide Salts. Center for Disease Control Manual Guide--Safety Management, No. CDC-22, Atlanta, Georgia. April 30, 1976.
- 6. Kiernan JA. Histological and Histochemical Methods: Theory and Practice. New York: Pergamon Press 1981.
- 7. Nadji M, Morales AR. Immunoperoxidase, part 1: the techniques and its pitfall. Lab Med 1983; 14:767-770.
- Omata M, Liew CT, Ashcavai M, Peters Rl. Nonimmunologic binding of horseradish peroxidase to hepatitis B surface antigen. A possible source of error in immunohistochemistry. Am J Clin Pathol. May, 1980; 73(5):626-632.
- 9. U.S. Congress. Clinical Laboratory Improvement Amendments of 1988: Final Rule, 57 FR 7163, February 28, 1992.
- National Institute for Occupational Safety and Health, (NIOSH), Rockville, MD. Explosive azide hazard, Publication No. 78-127, 1976.



© 2020, BioGenex Laboratories. All rights reserved.

Category	Antibodies	Revision No.	J
Document No.	932-109M-EN	Release Date	11-May-2022