

# Anti-Actin, Muscle-Specific [HHF35]

Catalog No.	Description		
AM090-5M	6 ml of Ready-to-Use Antibody for use with BioGenex Super Sensitive <sup>TM</sup> Detection Systems OR equivalent detection system		
AM090-10M	10 ml of Ready-to-Use Antibody in a barcode labeled vial for use with BioGenex Super Sensitive <sup>TM</sup> Detection Systems and i6000 <sup>TM</sup> Automated Staining Systems		
MU090-UC	1 ml of Concentrated Antibody for use with BioGenex Super Sensitive <sup>TM</sup> Detection Systems OR equivalent detection system		
MU090-5UC	0.5 ml of Concentrated Antibody for use with BioGenex Super Sensitive <sup>TM</sup> Detection Systems OR equivalent detection system		
AX090-YCD	Ready-to-Use Antibody in Barcode labeled vial for use on the Xmatrx <sup>®</sup> Elite Staining System, 160 tests		
AX090-50D	Ready-to-Use Antibody in Barcode labeled vial for use on the Xmatrx <sup>®</sup> Elite Staining System, 50 tests		
AX090-4M	<b>AX090-4M</b> Ready-to-Use Antibody in Barcode labeled vial for use on the NanoVIP® Staining System, 50 tests		

Clone	Species	Ig Class
HHF35	Mouse	IgG1

## **Intended Use**

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

## **Summary and Explanation**

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 47 kD. This antibody recognizes alpha actin of skeletal, cardiac and smooth muscle cells and gamma actin from smooth muscle cells and will stain the cytoplasm in these cells. It is non-reactive with other mesenchymal cells and all epithelial cells except for myoepithelium. It can thus be used as a marker for leiomyomas, leiomyosarcomas, rhabdomyomas and rhabdomyosarcomas.

## **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 human muscle-specific actin 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-090M* & FG-090M*	
Recommended Dilution for Concentrated Antibody	1:10-50 in HK941	
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 <b>OR</b> One-Step Super Sensitive <sup>™</sup> 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.

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CE <sub>Emergo</sub>	Europe, Prinsessegracht	20, 2514AP	The Hague, The Netherlands
EC REP			

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**

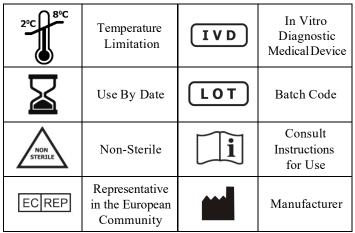
This antibody stains cytoplasm in positive cells in formalinfixed, paraffin embedded tissue sections. An example image of a tissue section stained with this antibody can be found on the product page on the BioGenex website. Interpretation of the staining result is solely the responsibility of the user.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

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- 2. Duijvestijn, A, et al. J Immunol 138: 713-719, 1987.
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- National Institute for Occupational Safety and Health, (NIOSH), Rockville, MD. Explosive azide hazard, Publication No. 78-127, 1976.



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