

Mouse Actin, Muscle Specific Monoclonal Antibody

Actin, Muscle Specific

CATALOG # AAA13553	HOST Mouse	REACTIVITY Human, Dog, Cat, Mouse, Rat, Monkey, Rabbit, Chicken, Shrew
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PRODUCT SYNONYMS

Actin; Muscle Specific; Monoclonal Antibody; anti-Actin; Muscle Specific antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human, Dog, Cat, Mouse, Rat, Monkey, Rabbit, Chicken, Shrew
Clonality	Monoclonal
Isotype	IgG1/K
Clone Number	HHF-35
Form/Format	Actin, Muscle Specific is a mouse monoclonal antibody derived from cell culture supernatant that is concentrated, dialyzed, filter sterilized and diluted in buffer pH 7.5, containing BSA and sodium azide as a preservative.
Application Notes	Intended Use: This antibody is intended for use in Immunohistochemical applications on formalin fixed paraffin-embedded tissues (FFPE), frozen tissue sections and cell preparations. Interpretation of results should be performed by qualified medical professionals.
Control	Skeletal Muscle, Appendix, Prostate
Localization	Cytoplasmic
Immunogen	SDS extract of human myocardium
Reactivity Note	Paraffin, Frozen
Precautions	1. This product contains sodium azide (NaN₃), a toxic chemical which may react with plumbing to form highly explosive build-ups of metal azides. Upon disposal, flush with large volumes of water to prevent sodium azide build-up. 2. Ensure proper handling procedures are used with reagent. Always wear proper laboratory equipment such as laboratory coat and gloves when handling reagents. 3. Unused solution should be disposed of according to local and federal regulations. 4. Do not ingest reagent. If reagent ingested, contact a poison control center immediately. 5. For complete recommendations for handling biological specimens please refer to the CDC document, "Guidelines for Safe Work Practices in Human and Animal Laboratories" (4).

Staining Procedure

1. Cut and mount 3-5 micron formalin-fixed paraffin-embedded tissues on positive charged slides such as Hydrophilic Plus Slides.
2. Air dry for 2 hours at 58° C.
3. Deparaffinize, dehydrate and rehydrate tissues.
4. Subject tissues to heat epitope retrieval using a suitable retrieval solution such as ImmunoDNA Retriever with Citrate or EDTA.
5. Any of three heating methods may be used:
 - a. TintoRetriever Pressure Cooker or Equivalent**
Place tissues/slides in a staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA, and place in the pressure cooker. Add 1-2 inches of distilled water to the pressure cooker and turn heat to high. Incubate for 15 minutes. Open and immediately transfer slides to room temperature.
 - b. TintoRetriever PT Module or Water Bath Method**
Place tissues/slides in a pre-warmed staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA at 95°-99° C. Incubate for 30-60 minutes.
 - c. Conventional Steamer Method**
Place tissues/slides in a pre-warmed staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA in a Steamer, cover and steam for 30-60 minutes.
6. After heat treatment, transfer slides in ImmunoDNA Retriever with Citrate or EDTA to room temperature and let stand for 15-20 minutes.
7. For manual staining, perform antibody incubation at ambient temperature. For automated staining methods, perform antibody incubation according to instrument manufacturer's instructions.
8. Wash slides with IHC wash buffer or DI water.
9. Continue IHC staining protocol

Speciment Preparation

Paraffin sections:

The antibody can be used on formalin-fixed paraffin-embedded (FFPE) tissue sections. Ensure tissue undergoes appropriate fixation to ensure best results. Pre-treatment of tissues with heat-induced epitope retrieval (HIER) is recommended using ImmunoDNA Retriever with Citrate, ImmunoDNA Retriever with EDTA or ImmunoDNA Digestor. See reverse side for complete protocol. Tissue should remain hydrated via use of Immuno/DNA Washer solutions.

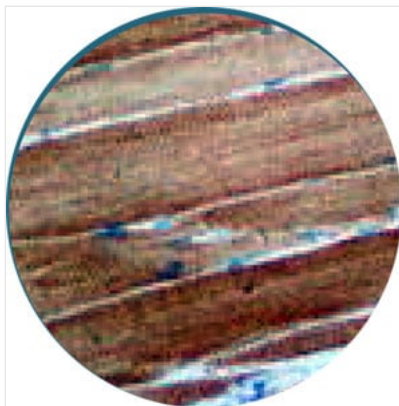
Frozen sections and cell preparations:

The antibody can be used for labeling acetone-fixed frozen sections and acetone-fixed cell preparations

Preparation and Storage

Store at 2 to 8 degree C. Do not use after expiration date listed on the package label. Temperature fluctuations should be avoided. Store appropriately when not in use, and avoid prologed exposure to room temperature conditions.

IMAGES



IHC (Immunohistochemistry)

Inset:IHC of Actin, Muscle Specific on a FFPE Skeletal Muscle Tissue

Normal Tissues	
Positive (+)	
Skeletal Muscles	Smooth Muscles of Arteries
Veins & Pericytes of Smaller Arteries	Tunica Muscularis of the GI Tract
Myometrium of the Uterus	Prostatic Stroma
Capsule cells of several parenchymal organs, including liver, kidney, lymph nodes, & spleen	
Myoepithelia layers of the mammary, ducts, & glands	
Eccrine sweat, bronchial, & salivary glands	
Negative (-)	
Vascular Endothelial Cells	Epithelial Cells
Lymphoid Cells	Macrophages
Connective Tissue	Neural Cells
Abnormal Tissues	
Positive (+)	
Leiomyomas	Leiomyosarcomas
Rhabdomyosarcomas	
Negative (-)	
Invasive Breast Tumors	Non-Muscle Sarcomas
Lymphomas	Melanomas
Neoplastic Cells of Carcinomas	

Performance Characteristic

Step	ImmunoDetector AP/HRP	PolyDetector AP/HRP	PolyDetector Plus HRP
Peroxidase/AP Blocker	5 min.	5 min.	5 min.
Primary Antibody	30-60 min.	30-60 min.	30-60 min.
1st Step Detection	10 min.	30-45 min.	15 min.
2nd Step Detection	10 min.	Not Applicable	15 min.
Substrate-Chromogen	5-10 min.	5-10 min.	5-10 min.
Counterstain	Varies	Varies	Varies

IHC Protocol

Antibody Type	Dilution	Volume/Qty
Tinto Prediluted	Ready-to-Use	3.0 mL
Tinto Prediluted	Ready-to-Use	7.0 mL
Tinto Prediluted	Ready-to-Use	15.0 mL
Concentrated	1:50 - 1:200	0.1 mL
Concentrated	1:50 - 1:200	0.5 mL
Concentrated	1:50 - 1:200	1.0 mL
Control Slides	Not Applicable	5 slides

Presentation

ADDITIONAL INFORMATION

Related Product Information for anti-Actin, Muscle Specific antibody

Actin is a globular-structural, 345 kDa protein that polymerizes in a helical fashion to form an actin filament (or microfilament). Actin filaments provide mechanical support for the cell, determine the cell shape, enable cell movements (through lamellipodia, filopodia, or pseudopodia); and participate in certain cell junctions, in cytoplasmic streaming and in contraction of the cell during cytokinesis. In muscle cells they play an essential role, along with myosin, in muscle contraction. In the cytosol, actin is predominantly bound to ATP, but can also bind to ADP. This antibody recognizes actin of skeletal, cardiac, and smooth-muscle cells. It is not reactive with other mesenchymal cells except for myoepithelium. Muscle-Specific Actin recognizes alpha and gamma isotypes of all muscle groups. Non-muscle cells such as vascular endothelial cells and connective tissues are nonreactive. Neoplastic cells of non-muscle-derived tissue such as Carcinomas, Melanomas and Lymphomas are negative. This antibody is useful in the identification of rhabdoid cellular elements.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/monoclonal/actin-muscle-specific-antibody-clone-hhf-35-elisa/13553>