10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.875.1999

ACTA1 Antibody
Mouse Monoclonal Antibody (Mab)
Catalog # AM1965B

Specification

ACTA1 Antibody - Product Information

Application	**WB, IHC-P, FC,E**
Primary Accession	P68133
Other Accession	P68136, P68135, P68137, P68134, P68139, P68138, NP_001091.1
Reactivity	**Human**
Predicted	**Bovine, Chicken, Mouse, Pig, Rabbit, Rat**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1,k**

ACTA1 Antibody - Additional Information

Gene ID 58

Other Names
Actin, alpha skeletal muscle, Alpha-actin-1, ACTA1, ACTA

Target/Specificity
This ACTA1 monoclonal antibody is generated from mouse immunized with ACTA1 recombinant protein.

Dilution
WB~~1:1000
IHC-P~~1:10~50
FC~~1:10~50

Format
Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
ACTA1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

ACTA1 Antibody - Protein Information

Name ACTA1

Synonyms ACTA

Function Actins are highly conserved proteins that are involved in various types of cell motility and are ubiquitously expressed in all eukaryotic cells.

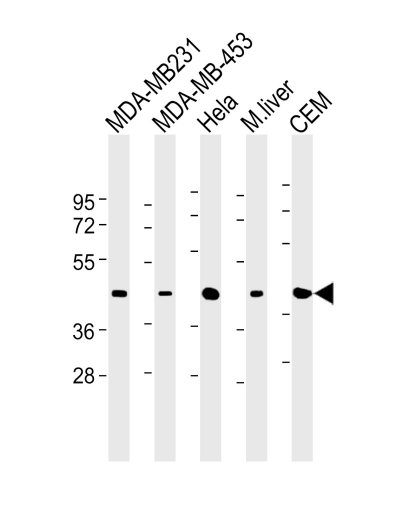
Cellular Location
Cytoplasm, cytoskeleton.

ACTA1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ACTA1 Antibody - Images



"All lanes : Anti-ACTA1 Antibody at 1:500-1:1000 dilution Lane 1: MDA-MB231 whole cell lysate Lane 2: MDA-MB-453 whole cell lysate Lane 3: Hela whole cell lysate Lane 4: mouse liver lysate Lane 5: CEM whole cell lysate Secondary Goat Anti-mouse IgG, (H+L),Peroxidase conjugated at 1/10000 dilution. Predicted band size : 42051 Da Blocking/Dilution buffer: 5% NFDM/TBST."

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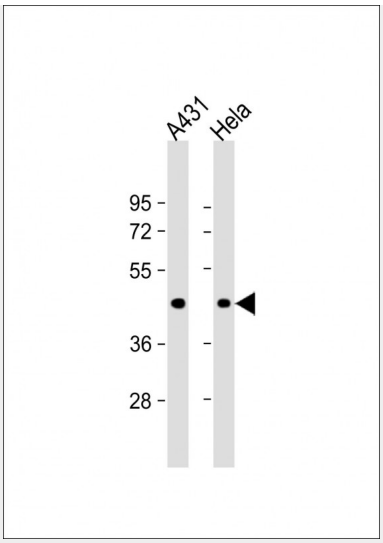
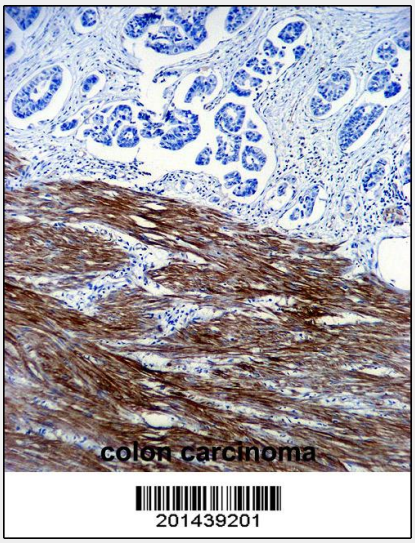


All lanes : Anti- at 1:1000 dilution Lane 1: A431 whole cell lysate Lane 2: Hela whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 42 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



ACTA1 Antibody (Cat. #AM1965b)immunohistochemistry analysis in formalin fixed and paraffin embedded human colon carcinoma followed by peroxidase conjµgation of the secondary antibody and DAB staining.This data demonstrates the use of ACTA1 Antibody for immunohistochemistry. Clinical relevance has not been evaluated.

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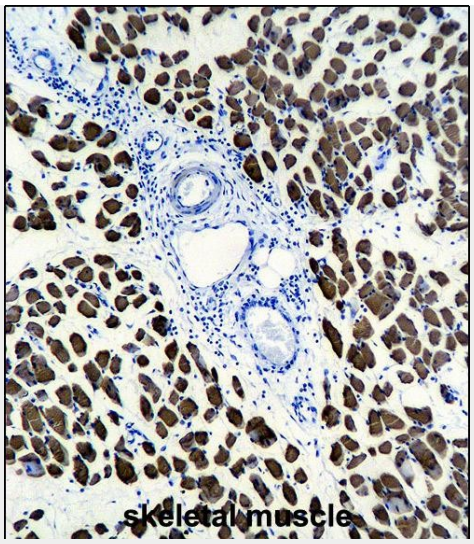
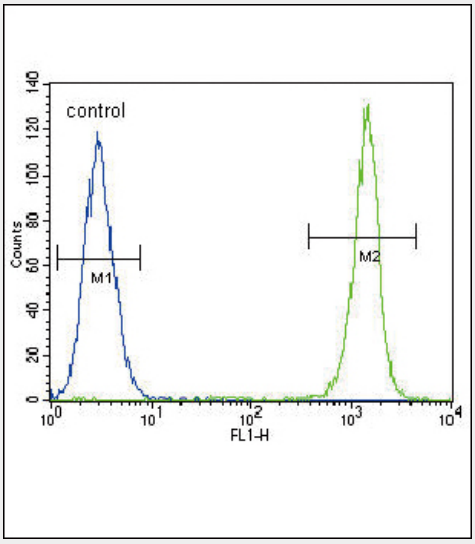


ACTA1 Antibody (Cat. #AM1965b)immunohistochemistry analysis in formalin fixed and paraffin embedded human skeletal muscle followed by peroxidase conjµgation of the secondary antibody and DAB staining.This data demonstrates the use of ACTA1 Antibody for immunohistochemistry. Clinical relevance has not been evaluated.



ACTA1 Antibody (Cat. #AM1965b) flow cytometric analysis of A549 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-mouse secondary antibodies were used for the analysis.

ACTA1 Antibody - Background

The product encoded by this gene belongs to the actin family of proteins, which are highly conserved proteins that play a role in cell motility, structure and integrity. Alpha, beta and gamma actin isoforms have been identified, with alpha actins being a major constituent of the contractile apparatus, while beta and gamma actins are involved in the regulation of cell motility. This actin is an alpha actin that is found in skeletal muscle. Mutations in this gene cause nemaline myopathy type 3, congenital myopathy with excess of thin myofilaments, congenital myopathy with cores, and congenital myopathy with fiber-type disproportion, diseases that lead to muscle fiber defects.

ACTA1 Antibody - References

Kim, E.Y., et al. Am. J. Physiol. Renal Physiol. 299 (3), F594-F604 (2010) :
Haigh, S.E., et al. Neuromuscul. Disord. 20(6):363-374(2010)
Yu, G., et al. J Clin Neurosci 17(6):766-769(2010)
Yu, C.H., et al. PLoS ONE 5 (7), E11878 (2010) :
Licastro, F., et al. Curr. Pharm. Des. 16(7):783-788(2010)

ACTA1 Antibody - Citations

- PKC-mediated phosphorylation of nuclear lamins at a single serine residue regulates interphase nuclear size in Xenopus and mammalian cells.
- Nuclear size is sensitive to NTF2 protein levels dependent on Ran binding.