10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

ACTA1 Antibody

Mouse Monoclonal Antibody (Mab)
Catalog # AM1965B

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	Mouse, Rat, Rabbit, Pig, Chicken, Bovine
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1,k
Clone Names	337CT30.10.1
Calculated MW	42051

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~~ 1:500-1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
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.

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.

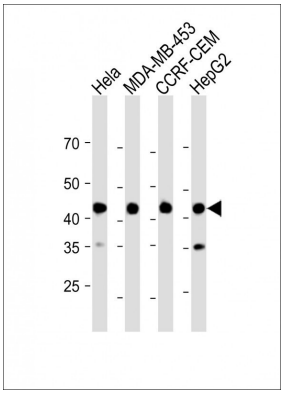
Background

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.

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)

Images



All lanes: Anti-ACTA1 Antibody at 1:1000 dilution Lane 1: Hela whole cell lysate Lane 2: MDA-MB-453 whole cell lysate Lane 3: CCRF-CEM whole cell lysate Lane 4: HepG2 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Mouse IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 42KDa Blocking/Dilution buffer: 5% NFDM/TBST.

Citations

- Nuclear Transport Factor 2 (NTF2) suppresses WM983B metastatic melanoma by modifying cell migration, metastasis, and gene expression
- 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.