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

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|---|---|
| **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, Canine |
| **Host** | Mouse |
| **Clonality** | Monoclonal |
| **Isotype** | IgG1,k |
| **Clone Names** | 337CT30.10.1 |
| **Calculated MW** | 42051 |

## Additional Information

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|---|---|
| **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

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| **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.

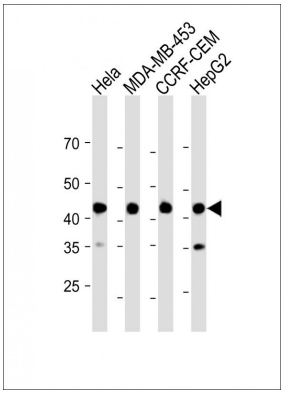
## Background

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.

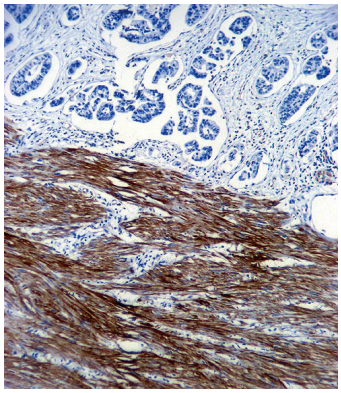
## References

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

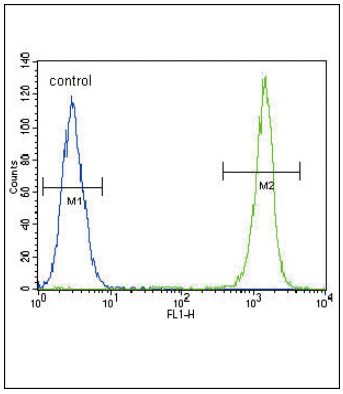



All lanes: Anti-ACTA1 Antibody at 1:1000 dilution Lane 1: Hela whole cell lysate Lane 2: MDA-MB-453 whole cell lysate Lane 3: CCRF-CEM whole cell lysate Lane 4: HepG2 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Mouse IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000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



ACTA1 Antibody (Cat. #AM1965b)immunohistochemistry analysis in formalin fixed and paraffin embedded human colon carcinoma followed by peroxidase conjugation 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.




## Citations

- Nuclear size is sensitive to NTF2 protein levels dependent on Ran binding.
- PKC-mediated phosphorylation of nuclear lamins at a single serine residue regulates interphase nuclear size in Xenopus and mammalian cells.
- Nuclear Transport Factor 2 (NTF2) suppresses WM983B metastatic melanoma by modifying cell migration, metastasis, and gene expression

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.