

# ACTA1/Alpha-actin Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP14779b

## Product Information

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<b>Application</b>	IHC-P, IF, FC, WB, E
<b>Primary Accession</b>	<a href="#">P68133</a>
<b>Other Accession</b>	<a href="#">P68136</a> , <a href="#">P68135</a> , <a href="#">P68137</a> , <a href="#">P68134</a> , <a href="#">P68139</a> , <a href="#">P68138</a> , <a href="#">P04751</a> , <a href="#">P68035</a> , <a href="#">P68033</a> , <a href="#">P68032</a> , <a href="#">P68034</a> , <a href="#">Q3ZC07</a> , <a href="#">P62738</a> , <a href="#">P62740</a> , <a href="#">P62737</a> , <a href="#">P62736</a> , <a href="#">P08023</a> , <a href="#">P62739</a> , <a href="#">P04752</a> , <a href="#">P10995</a> , <a href="#">NP_001091.1</a>
<b>Reactivity</b>	Human, Rat, Mouse
<b>Predicted</b>	Mouse, Rat, Rabbit, Pig, Chicken, Bovine, Xenopus
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	Rabbit IgG
<b>Calculated MW</b>	42051
<b>Antigen Region</b>	346-375

## Additional Information

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<b>Gene ID</b>	58
<b>Other Names</b>	Actin, alpha skeletal muscle, Alpha-actin-1, ACTA1, ACTA
<b>Target/Specificity</b>	This ACTA1/Alpha-actin antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 346-375 amino acids from the C-terminal region of human ACTA1/Alpha-actin.
<b>Dilution</b>	IHC-P~~1:100~500 IF~~1:10~50 FC~~1:10~50 WB~~1:1000 E~~Use at an assay dependent concentration.
<b>Format</b>	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
<b>Storage</b>	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.
<b>Precautions</b>	ACTA1/Alpha-actin Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	ACTA1
<b>Synonyms</b>	ACTA

<b>Function</b>	Actins are highly conserved proteins that are involved in various types of cell motility and are ubiquitously expressed in all eukaryotic cells.
<b>Cellular Location</b>	Cytoplasm, cytoskeleton.

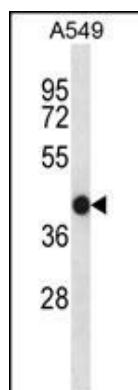
## Background

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.

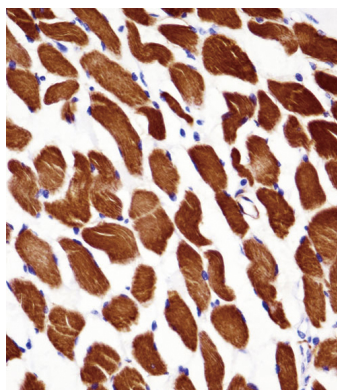
## References

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

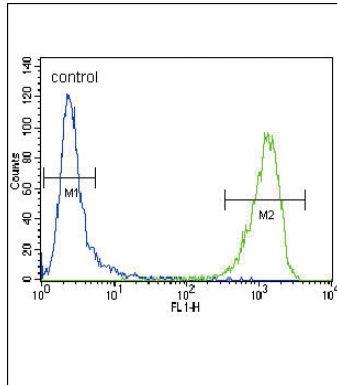
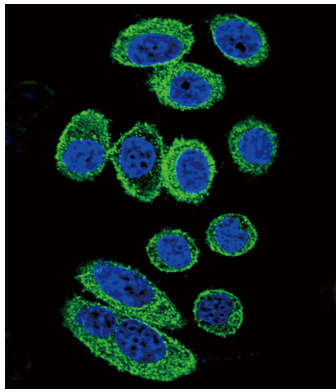


ACTA1/ $\alpha$ -actin Antibody (C-term) (Cat. #AP14779b) western blot analysis in A549, RD cell line and human placenta lysates (35ug/lane). This demonstrates the ACTA1/ $\alpha$ -actin antibody detected the ACTA1/ $\alpha$ -actin protein (arrow).



ACTA1/ $\beta$ -actin Antibody (C-term) (AP14779b) immunohistochemistry analysis in formalin fixed and paraffin embedded human skeletal muscle followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of ACTA1/ $\beta$ -actin Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

Confocal immunofluorescent analysis of ACTA1/ $\beta$ -actin Antibody (C-term) (Cat#AP14779b) with A549 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). DAPI was used to stain the cell nuclear (blue).



ACTA1/?-actin Antibody (C-term) (Cat. #AP14779b) flow cytometric analysis of CEM cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

## Citations

- [Directed Differentiation of Zebrafish Pluripotent Embryonic Cells to Functional Cardiomyocytes.](#)
- [Exposure to concentrated ambient particulate matter induces reversible increase of heart weight in spontaneously hypertensive rats.](#)

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