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

ACTA1/alpha-actin Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP17487b

Product Information

Application	WB, IHC-P, E
Primary Accession	P68133
Other Accession	P60010, P68136, P68135, P68137, P68134, P68139, P68138, P63269, P63268, P63267, P63270, Q5E9B5, A2BDB0, P63259, P63260, P63261, Q5ZMQ2, P63258, P04751, P68035, P68033, P68032, P68034, Q3ZC07, O93400, P60711, P29751, Q6QAQ1, P60710, Q4R561, P60709, P48975
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Chicken, Drosophila, C.Elegans, Hamster, Mouse, Pig, Monkey, Rat, Rabbit, Xenopus, Yeast, Zebrafish
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	42051
Antigen Region	189-217

Additional Information

Gene ID	58
Other Names	Actin, alpha skeletal muscle, Alpha-actin-1, ACTA1, ACTA
Target/Specificity	This ACTA1/Alpha-actin antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 189-217 amino acids from the C-terminal region of human ACTA1/Alpha-actin.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	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.
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/alpha-actin Antibody (C-term) 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.

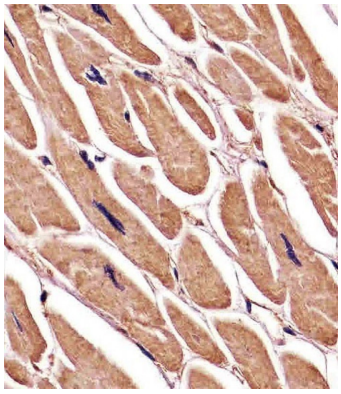
Background

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.

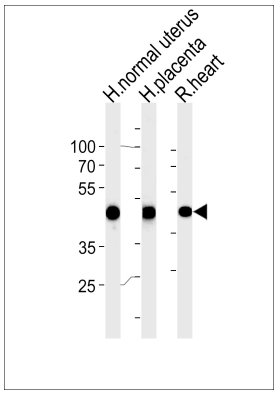
References

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



AP17487b staining ACTA1/alpha-actin in human heart tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.



ACTA1/α-actin Antibody (C-term) (Cat. #AP17487b) western blot analysis in human normal uterus and placenta,rat heart tissue lysates (35ug/lane).This demonstrates the ACTA1/α-actin antibody detected the ACTA1/α-actin protein (arrow).