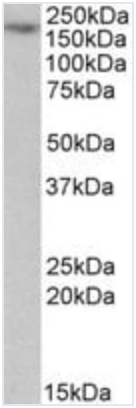
MYO5A Antibody – Goat Polyclonal

PRODUCT OVERVIEW

Product Name	MYO5A, Polyclonal Antibody
Full Product Name	Goat anti-MYO5A Antibody
Product Gene Name	anti-MYO5A antibody
Product Synonym Names	MYO5A; myosin VA (heavy chain 12, myoxin); GS1; MYH12; MYO5; MYR12; dilute; myosin V; myosin VA; myosin, heavy polypeptide kinase; myoxin; dilute antibody; GS1 antibody; MYH12 antibody; MYO5 antibody; myosin V antibody; myosin VA antibody; myosin VA (heavy chain 12; myoxin) antibody; myosin; heavy polypeptide kinase antibody; myoxin antibody; MYR12 antibody; MYO5A antibody
Immunogen Sequence	ETKQLELDLN
Clonality	Polyclonal
Host	Goat
Species Reactivity	Tested: Human, Mouse; Expected from sequence similarity: Human, Mouse, Rat, Cow
Form/Format	Supplied at 0.5 mg/ml in Tris saline, 0. 02% sodium azide, pH7.3 with 0.5% bovine serum albumin.
Purity/Purification	Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide.
Concentration	100ug specific antibody in 200ul (lot specific)
Preparation and Storage	Aliquot and store at -20 degree C. Minimize freezing and thawing.
Antibody/Peptide Pairs	MYO5A peptide (MBS427384) is used for blocking the activity of MYO5A antibody (MBS422444)
Molecular Weight	218,608 Da
OMIM	160777
Immunogen	Peptide with sequence C-ETKQLELDLN, from the internal region of the protein sequence according to NP_000250.3; NP_001135967.1.
Epitope	Internal region
Note	This antibody is expected to recognize both reported isoforms (NP_000250.3; NP_001135967.1).
ISO Certification	Manufactured in an ISO 9001:2008 Certified Laboratory.
Applications Tested/Suitable for anti-MYO5A antibody	Peptide ELISA (EIA), Western Blot (WB), Immunofluorescence (IF)
Application Notes for anti-MYO5A antibody	Peptide ELISA: Antibody detection limit dilution 1: 8000. Western Blot: Approx 200kDa band observed in lysates of cell line Jurkat (calculated MW of 215kDa according to NP_000250.3). Recommended concentration: 1-3ug/ml. Immunofluorescence: Transverse sections of Mouse Skeletal Muscle shows staining of the fibre membrane and neuromuscular junction. The observed pattern corresponds to earlier findings in literature with different antibodies (Röder et al, Proc Natl Acad Sci U S A.2010 Feb 2;107(5): 2031-6; PMID: 20133847). Recommended concentration: 1-3ug/ml.
Related Product Information for anti-MYO5A antibody	MBS422444 is an antibody targeting MYO5A. Also known as Goat anti-MYO5A Antibody. Reactive in Tested: Human, Mouse; Expected from sequence similarity: Human, Mouse, Rat, Cow. Host: Goat.
Other Notes	Small volumes of anti-MYO5A antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Western Blot (WB) of anti-MYO5A antibody
(1ug/ml) staining of Jurkat lysate (35ug protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.



Immunofluorescence (IF) of anti-MYO5A antibody
(1ug/ml) staining of Mouse Skeletal Muscle (first panel, and in green in third panel). Alpha-bungaratoxin staining in middle panel and in red in third panel. Detected by Fluorescence. Data kindly provided by Dr. Rdiger Rudolf, Karlsruhe, Germany

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for MYO5A. It may not necessarily be applicable to this product.

NCBI GI #	215982791
NCBI GeneID	4644
NCBI Accession #	NP_000250.3
NCBI Related Accession #	NP_001135967.1
UniProt Secondary Accession #	O60653; Q07902; Q16249; Q9UE30; Q9UE31; A8MZC5
UniProt Related Accession #	Q9Y4I1
GenBank Nucleotide #	NM_000259.3
NCBI Official Full Name	unconventional myosin-Va isoform 1
NCBI Official Synonym Full Names	myosin VA
NCBI Official Symbol	MYO5A
NCBI Official Synonym Symbols	GS1; MYO5; MYH12; MYR12
UniProt Protein Name	Unconventional myosin-Va
UniProt Synonym Protein Names	Dilute myosin heavy chain, non-muscle; Myosin heavy chain 12; Myosin-12; Myoxin
Protein Family	Unconventional myosin
UniProt Gene Name	MYO5A
UniProt Synonym Gene Names	MYH12
UniProt Entry Name	MYO5A_HUMAN
NCBI Protein Information	unconventional myosin-Va
NCBI Summary for MYO5A	This gene is one of three myosin V heavy-chain genes, belonging to the myosin gene superfamily. Myosin V is a class of actin-based motor proteins involved in cytoplasmic vesicle transport and anchorage, spindle-pole alignment and mRNA translocation. The protein encoded by this gene is abundant in melanocytes and nerve cells. Mutations in this gene cause Griscelli syndrome type-1 (GS1), Griscelli syndrome type-3 (GS3) and neuroectodermal melanolysosomal disease, or Elejalde disease. Multiple alternatively spliced transcript variants encoding different isoforms have been reported, but the full-length nature of some variants has not been determined. [provided by RefSeq, Dec 2008]

UniProt Comments for MYO5A	MYO5A: Processive actin-based motor that can move in large steps approximating the 36-nm pseudo-repeat of the actin filament. Involved in melanosome transport. May also be required for some polarization process involved in dendrite formation. May be a homodimer, which associates with multiple calmodulin or myosin light chains. Binds MLPH and MYRIP. Interacts with RIPL2, the interaction is required for its role in dendrite formation. Detected in melanocytes. 3 isoforms of the human protein are produced by alternative splicing. Protein type: Motility/polarity/chemotaxis; Motor Chromosomal Location of Human Ortholog: 15q21 Cellular Component: actin filament; actomyosin; cell soma; cytoplasm; cytosol; early endosome; endoplasmic reticulum; filopodium tip; Golgi apparatus; growth cone; intermediate filament; late endosome; lysosome; melanosome; membrane; myosin complex; neuron projection; peroxisome; photoreceptor outer segment; recycling endosome; ruffle; vesicle Molecular Function: actin binding; ATP binding; calcium ion binding; calmodulin binding; microfilament motor activity; Rab GTPase binding Biological Process: actin filament-based movement; cellular response to insulin stimulus; ER localization; exocytosis; insulin secretion; locomotion during locomotory behavior; long-chain fatty acid biosynthetic process; melanin biosynthetic process; melanocyte differentiation; melanosome transport; myelination; odontogenesis; post-Golgi vesicle-mediated transport; regulation of inositol-1,4,5-triphosphate receptor activity; secretory granule localization; synapse organization and biogenesis; synaptic transmission; transport; vesicle transport along actin filament; vesicle-mediated transport; visual perception Disease: Griscelli Syndrome, Type 1
Research Articles on MYO5A	**1.** These findings reveal a new fast-acting energy conservation strategy halting growth by immobilizing myosin V in a newly described state on selectively stabilized actin cables.
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