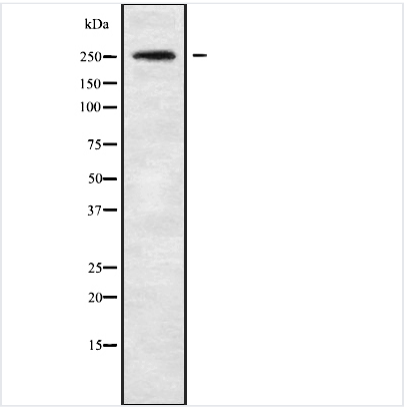
MYO7A Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	MYO7A, Polyclonal Antibody
Full Product Name	MYO7A Antibody
Product Gene Name	anti-MYO7A antibody
Product Synonym Names	Deafness autosomal dominant 11; Deafness autosomal recessive 2; DFNA11; DFNB 2; DFNB2; Myo7a; Myosin 7a; Myosin VIIA (Usher syndrome 1B (autosomal recessive, severe)); Myosin VIIa; Myosin, unconventional, family VII, member A; MYOVIIA; MYU7A; NSRD 2; NSRD2; Unconventional myosin VIIa; Ush 1B; Ush1b; Usher syndrome 1B
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Concentration	1mg/ml (lot specific)
Specificity	MYO7A antibody detects endogenous levels of total MYO7A
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.
Antibody/Peptide Pairs	MYO7A peptide (MBS9628676) is used for blocking the activity of MYO7A antibody (MBS9609972)
Molecular Weight	Observed: 254 kDa Predicted: 255 kDa
3D Structure	ModBase 3D Structure for Q13402
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
Immunogen	A synthesized peptide derived from human MYO7A
Subcellular Location	Cytoplasmic, Cytoskeleton
Tissue Specificity	Expressed in the pigment epithelium and the photoreceptor cells of the retina. Also found in kidney, liver, testis, cochlea, lymphocytes. Not expressed in brain.
Predicted Cross Reactivity	**Bovine, Horse, Sheep, Rabbit, Dog, Chicken**
Similarity	Bovine (92%), Horse (100%), Sheep (92%), Rabbit (83%), Dog (100%), Chicken (83%)
Conjugation	Unconjugated
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-MYO7A antibody	Western Blot (WB), ELISA (EIA)
Application Notes for anti-MYO7A antibody	WB: 1:1000-3000

Related Product Information for anti-MYO7A antibody	Function: Myosins are actin-based motor molecules with ATPase activity. Unconventional myosins serve in intracellular movements. Their highly divergent tails bind to membranous compartments, which are then moved relative to actin filaments. In the retina, plays an important role in the renewal of the outer photoreceptor disks. Plays an important role in the distribution and migration of retinal pigment epithelial (RPE) melanosomes and phagosomes, and in the regulation of opsin transport in retinal photoreceptors. In the inner ear, plays an important role in differentiation, morphogenesis and organization of cochlear hair cell bundles. Involved in hair-cell vesicle trafficking of aminoglycosides, which are known to induce ototoxicity (By similarity). Motor protein that is a part of the functional network formed by USH1C, USH1G, CDH23 and MYO7A that mediates mechanotransduction in cochlear hair cells. Required for normal hearing. Subunit Structure: Might homodimerize in a two headed molecule through the formation of a coiled-coil rod (By similarity). Identified in a complex with USH1C and USH1G (PubMed:21709241). Interacts with MYRIP (PubMed:11964381). Interacts with RPE65 (PubMed:21493626). Interacts with CIB2 (PubMed:23023331). May interact with CALM (PubMed:15300860). Interacts with WHRN (By similarity). Interacts with PLEKHB1 (via PH domain) (By similarity). Interacts with PCDH15 (By similarity). Interacts with TWF2 (By similarity). Interacts with USH1G (By similarity). Interacts with Myh9 (By similarity). Similarity: The SAH (single alpha-helix) region is characterized by a high content of charged residues which are predicted to stabilize the alpha-helical structure by ionic bonds. Belongs to the TRAFAC class myosin-kinesin ATPase superfamily. Myosin family.
Other Notes	Small volumes of anti-MYO7A 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.
Searchable Terms for MYO7A purchase	MBS9609972 is an antibody targeting MYO7A. Also known as MYO7A Antibody. Reactive in Human, Mouse, Rat. Host: Rabbit.



Western Blot (WB) of anti-MYO7A antibody
Western blot analysis of MYO7A using HT29 whole cell lysates

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for MYO7A. It may not necessarily be applicable to this product.

NCBI GI #	189083798
NCBI GeneID	4647
NCBI Accession #	NP_000251.3
UniProt Primary Accession #	Q13402
UniProt Secondary Accession #	P78427; Q13321; Q14785; Q92821; Q92822; B9A011; F8VUN5
UniProt Related Accession #	Q13402
GenBank Nucleotide #	NM_000260.3
NCBI Official Full Name	unconventional myosin-VIIa isoform 1
NCBI Official Synonym Full Names	myosin VIIA
NCBI Official Symbol	MYO7A

NCBI Official Synonym Symbols	DFNB2; MYU7A; NSRD2; USH1B; DFNA11; MYOVIIA
UniProt Protein Name	Unconventional myosin-VIIa
Protein Family	Unconventional myosin
UniProt Gene Name	MYO7A
UniProt Synonym Gene Names	USH1B
NCBI Protein Information	unconventional myosin-VIIa
NCBI Summary for MYO7A	This gene is a member of the myosin gene family. Myosins are mechanochemical proteins characterized by the presence of a motor domain, an actin-binding domain, a neck domain that interacts with other proteins, and a tail domain that serves as an anchor. This gene encodes an unconventional myosin with a very short tail. Defects in this gene are associated with the mouse shaker-1 phenotype and the human Usher syndrome 1B which are characterized by deafness, reduced vestibular function, and (in human) retinal degeneration. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2008]
UniProt Comments for MYO7A	Myosins are actin-based motor molecules with ATPase activity. Unconventional myosins serve in intracellular movements. Their highly divergent tails bind to membranous compartments, which are then moved relative to actin filaments. In the retina, plays an important role in the renewal of the outer photoreceptor disks. Plays an important role in the distribution and migration of retinal pigment epithelial (RPE) melanosomes and phagosomes, and in the regulation of opsin transport in retinal photoreceptors. In the inner ear, plays an important role in differentiation, morphogenesis and organization of cochlear hair cell bundles. Involved in hair-cell vesicle trafficking of aminoglycosides, which are known to induce ototoxicity (). Motor protein that is a part of the functional network formed by USH1C, USH1G, CDH23 and MYO7A that mediates mechanotransduction in cochlear hair cells. Required for normal hearing.
Research Articles on MYO7A	**1.** pathogenic mutation c.2011G>A identified in Chinese family with autosomal dominant hearing loss
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