

Anti-MYO7A antibody



Description Unconjugated Rabbit polyclonal to MYO7A

Model STJ191013

Host Rabbit

Reactivity Human, Mouse

Applications ELISA, WB

Immunogen Synthesized peptide derived from human MYO7A protein.

Immunogen Region 830-910aa

Gene ID 4647

Gene Symbol MYO7A

Dilution range WB 1:500-2000 ELISA 1:5000-20000

Specificity MYO7A Polyclonal Antibody detects endogenous levels of protein.

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.

Purification MYO7A antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Note For Research Use Only (RUO).

Protein Name Unconventional myosin-VIIa

Molecular Weight 243 kDa

Clonality Polyclonal

Conjugation Unconjugated

Isotype IgG

Formulation Liquid form in PBS containing 50% glycerol, and 0.02% sodium azide.

Concentration 1 mg/ml

Storage Instruction Store at -20°C, and avoid repeat freeze-thaw cycles.

Database Links <u>HGNC:7606OMIM:276900</u>

Alternative Names Unconventional myosin-VIIa

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 . 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.

Sequence and Domain Family 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.

Cellular Localization Cytoplasm, cytoplasm, cytoskeleton. In the

photoreceptor cells, mainly localized in the inner and base of outer segments as well as in the synaptic ending region. Colocalizes with a subset of melanosomes in retinal pigment epithelium cells. Detected at the tip of cochlear hair cell stereocilia. The complex formed by MYO7A, USH1C and

USH1G colocalizes with F-actin.

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