

MYO7A Rabbit pAb

CatalogNo: YN0909

Key Features

Host Species

- Rabbit

Reactivity

- Human, Mouse

Applications

- WB, ELISA

MW

- 243kD (Observed)

Isotype

- IgG

Recommended Dilution Ratios

WB 1:500-2000

ELISA 1:5000-20000

Storage

Storage*

-15°C to -25°C/1 year (Do not lower than -25°C)

Formulation

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Basic Information

Clonality

Polyclonal

Immunogen Information

Immunogen

Synthesized peptide derived from human protein . at AA range: 830-910

Specificity

MYO7A Polyclonal Antibody detects endogenous levels of protein.

Target Information

Gene name

MYO7A USH1B

Protein Name

Unconventional myosin-VIIa

Organism**Gene ID****UniProt ID**

Human

[4647;](#)[Q13402;](#)

Mouse

[P97479;](#)**Cellular
Localization**

Cytoplasm . Cytoplasm, cell cortex . Cytoplasm, cytoskeleton . Cell junction, synapse . In the photoreceptor cells, mainly localized in the inner and base of outer segments as well as in the synaptic ending region (PubMed:8842737). In retinal pigment epithelial cells colocalizes with a subset of melanosomes, displays predominant localization to stress fiber-like structures and some localization to cytoplasmic puncta (PubMed:19643958, PubMed:27331610). Detected at the tip of cochlear hair cell stereocilia (PubMed:21709241). The complex formed by MYO7A, USH1C and USH1G colocalizes with F-actin (PubMed:21709241). .

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.

Function

Alternative products:Additional isoforms seem to exist,developmental stage:Detected in optic cup in 5.5 weeks-old embryos. Expressed in retinal pigment epithelium, cochlear and vestibular neuroepithelia, and olfactory epithelium at 8 weeks. At 19 weeks, present in both pigment epithelium and photoreceptor cells. At 24-28 weeks, expression in pigment epithelium and photoreceptor cells increases. Present in pigment epithelium and photoreceptor cells in adult.,Disease:Defects in MYO7A are the cause of non-syndromic sensorineural deafness autosomal dominant type 11 (DFNA11) [MIM:601317].,Disease:Defects in MYO7A are the cause of non-syndromic sensorineural deafness autosomal recessive type 2 (DFNB2) [MIM:600060]; also called neurosensory non-syndromic recessive deafness 2 (NSRD2). DFNB2 is a form of sensorineural hearing loss. Sensorineural deafness results from damage to the neural receptors of the inner ear, the nerve pathways to the brain, or the area of the brain that receives sound information.,Disease:Defects in MYO7A are the cause of Usher syndrome type 1B (USH1B) [MIM:276900]. USH is a genetically heterogeneous condition characterized by the association of retinitis pigmentosa and sensorineural deafness. Age at onset and differences in auditory and vestibular function distinguish Usher syndrome type 1 (USH1), Usher syndrome type 2 (USH2) and Usher syndrome type 3 (USH3). USH1 is characterized by profound congenital sensorineural deafness, absent vestibular function and prepubertal onset of progressive retinitis pigmentosa leading to blindness.,Function:Myosins are actin-based motor molecules with ATPase activity. Unconventional myosins serve in intracellular movements. Their highly divergent tails are presumed to bind to membranous compartments, which would be moved relative to actin filaments. In retina, myosin VIIa might play a role in trafficking of ribbon-synaptic vesicle complexes and renewal of the outer photoreceptors disks. In inner ear, it might maintain the rigidity of stereocilia during the dynamic movements of the bundle. Involved in hair-cell vesicle trafficking of aminoglycosides, which are known to induce ototoxicity.,online information:Gene page,online information:Retina International's Scientific Newsletter,similarity:Contains 1 FERM domain.,similarity:Contains 1 myosin head-like domain.,similarity:Contains 1 SH3 domain.,similarity:Contains 2 FERM domains.,similarity:Contains 2 MyTH4 domains.,similarity:Contains 5 IQ domains.,subcellular location:In the photoreceptor cells, mainly localized in the inner and base of outer segments as well as in the synaptic ending region.,subunit:Might homodimerize in a two headed molecule through the formation of a coiled-coil rod. Binds MYRIP and WHRN.,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.,

| Validation Data

| Contact information

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MYO7A Rabbit pAb

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