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Rabbit Anti-Myosin VIIa/Biotin Conjugated antibody

SL7761R-Bio

Product Name	Anti-Myosin VIIa/Biotin
Chinese Name	生物素标记的肌球蛋白 7a/常染色体隐性耳聋蛋白 2 抗体
Alias	Deafness autosomal dominant 11; Deafness autosomal recessive 2; DFNA11; DFNB 2; DFNB2; Myo7a; Myosin 7a; Myosin VIIa; MYU7A; NSRD 2; NSRD2; Ush 1B; Ush1b; Usher syndrome 1B.
Research Area	Signal transduction Stem cells Cytoskeleton Extracellular matrix
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Mouse(predicted:Human,Rat,Chicken,Dog,Pig,Cow,Horse)
Applications	Flow-Cyt=1ug/test not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	244kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human Myosin VIIa
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Product Detail	**background:** 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 may play a

role in trafficking of ribbon-synaptic vesicle complexes and renewal of the outer photoreceptors disks. In inner ear, it may maintain the rigidity of stereocilia during the dynamic movements of the bundle.

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.

Subunit:
Interacts with PLEKHB1 (via PH domain). Might homodimerize in a two headed molecule through the formation of a coiled-coil rod. Binds MYRIP and WHRN.

Subcellular Location:
Cytoplasm (Probable). Note=In the photoreceptor cells, mainly localized in the inner and base of outer segments as well as in the synaptic ending region.

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.

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.
Defects in MYO7A are the cause of 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. Defects in MYO7A are the cause of deafness autosomal dominant type 11 (DFNA11) [MIM:601317].

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Similarity:
Contains 2 FERM domains.
Contains 5 IQ domains.
Contains 1 myosin head-like domain.
Contains 2 MyTH4 domains.
Contains 1 SH3 domain.

Database links:

UniProtKB/Swiss-Prot: Q13402.2

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.