

Myosin VI Rabbit pAb

CatalogNo: YT5072

Key Features

Host SpeciesRabbit

149kD (Observed)

MW

Reactivity

Human,Mouse,Rat

Isotype

• IgG

Applications
• WB,IHC,IF,ELISA

Recommended Dilution Ratios

WB 1:500-1:2000 IHC: 1:100-300 ELISA 1:5000 IF 1:50-200

Storage

Storage*-15°C to -25°C/1 year(Do not lower than -25°C)FormulationLiquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Basic Information

Clonality Polyclonal

Immunogen Information

Immunogen	Synthesized peptide derived from Myosin VI . at AA range: 40-120
Specificity	Myosin VI Polyclonal Antibody detects endogenous levels of Myosin VI protein.

Target Information

Gene name	MYO6		
Protein Name	Unconventional myosin-VI Organism	Gene ID	UniProt ID
	Human	<u>4646;</u>	<u>Q9UM54;</u>
	Mouse		<u>Q64331;</u>
Cellular Localization	Golgi apparatus, trans-Golgi netv apparatus . Nucleus . Cytoplasm, Cytoplasmic vesicle, clathrin-coa ruffle membrane . Cell projection endocyctic vesicles (PubMed:165 vesicles and cytoplasm to Golgi a induction by p53 and p53-induce membrane ruffles from cell surfa DAB2 in clathrin-coated pits/vesic Golgi complex and in vesicular st [Isoform 3]: Cytoplasmic vesicle, Cytoplasmic vesicle, clathrin-coa	ork membrane ; Perip perinuclear region . N ted vesicle . Cell proje , microvillus . Cytopla 07995). Translocates pparatus, perinuclear d DNA damage (PubM ce by EGF-stimulation cles (PubMed:1196712 ructures close to the clathrin-coated vesicl ted vesicle membrane	pheral membrane protein . Golgi Membrane, clathrin-coated pit . ection, filopodium . Cell projection, ism, cytosol . Also present in from membrane ruffles, endocytic r membrane and nucleus through Med:16507995). Recruited into n (PubMed:9852149). Colocalizes with 27). Colocalizes with OPTN at the plasma membrane (By similarity); le membrane .; [Isoform 4]: e. Cell projection, ruffle membrane .
Tissue specificity	Expressed in most tissues exami thymus, prostate, testis, ovary, s	ned including heart, b mall intestine and col	rain, placenta, pancreas, spleen, lon. Highest levels in brain, pancreas,

thymus, prostate, testis, ovary, small intestine and colon. Highest levels in brain, pancreas, testis and small intestine. Also expressed in fetal brain and cochlea. Isoform 1 and isoform 2, containing the small insert, and isoform 4, containing neither insert, are expressed in unpolarized epithelial cells.

Function

Disease:Defects in MYO6 are the cause of non-syndromic sensorineural deafness autosomal dominant type 22 (DFNA22) [MIM:606346]. DFNA22 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. DFNA22 is progressive and postlingual, with onset during childhood. By the age of approximately 50 years, affected individuals invariably have profound sensorineural deafness., Disease: Defects in MYO6 are the cause of non-syndromic sensorineural deafness autosomal recessive type 37 (DFNB37) [MIM:607821]., Disease: Defects in MYO6 are the cause of sensorineural deafness with hypertrophic cardiomyopathy (DFNHCM) [MIM:606346]., Domain: Divided into three regions: a N-terminal motor (head) domain, followed by a neck domain consisting of a calmodulin-binding linker domain and a single IO motif, and a C-terminal tail region with a coiled-coil and a unique globular domain required for interaction with other proteins., Function: Myosins are actin-based motor molecules with ATPase activity. Unconventional myosins serve in intracellular movements. Myosin 6 is a reverse-direction motor protein that moves towards the minus-end of actin filaments. Has slow rate of actin-activated ADP release due to weak ATP binding. Functions in a variety of intracellular processes such as vesicular membrane trafficking and cell migration. Required for the structural integrity of the Golgi apparatus via the p53-dependent pro-survival pathway. Appears to be involved in a very early step of clathrin-mediated endocytosis in polarized epithelial cells. May act as a regulator of F-actin dynamics. May play a role in transporting DAB2 from the plasma membrane to specific cellular targets. Required for structural integrity of inner ear hair cells., PTM: Phosphorylation in the motor domain, induced by EGF, results in translocation of MYO6 from the cell surface to membrane ruffles and affects F-actin dynamics. Phosphorylated in vitro by p21-activated kinase (PAK)..similarity:Contains 1 IO domain..similarity:Contains 1 myosin head-like domain., subcellular location: Also present in endocyctic vesicles, and membrane ruffles. Translocates from membrane ruffles, endocytic vesicles and cytoplasm to Golgi apparatus, perinuclear membrane and nucleus through induction by p53 and p53-induced DNA damage. Recruited into membrane ruffles from cell surface by EGF-stimulation. Colocalizes with DAB2 in clathrin-coated pits/vesicles., subunit: Homodimer. Binding to calmodulin through a unique insert, not found in other myosins, located in the neck region between the motor domain and the IQ domain appears to contribute to the directionality reversal. This interaction occurs only if the C-terminal lobe of calmodulin is occupied by calcium. Interaction with F-actin/ACTN1 occurs only at the apical brush border domain of the proximal tubule cells (By similarity). Interacts with DAB2. In vitro, the C-terminal globular tail binds a C-terminal region of DAB2. Interacts with CFTR. Forms a complex with CFTR and DAB2 in the apical membrane of epithelial cells., tissue specificity: Expressed in most tissues examined including heart, brain, placenta, pancreas, spleen, thymus, prostate, testis, ovary, small intestine and colon. Highest levels in brain, pancreas, testis and small intestine. Also expressed in fetal brain and cochlea. Isoform 1 and isoform 2, containing the small insert, and isoform 4, containing neither insert, are expressed in unpolarized epithelial cells.,

Validation Data



Immunohistochemical analysis of paraffin-embedded rat-brain, antibody was diluted at 1:100



Immunohistochemical analysis of paraffin-embedded rat-brain, antibody was diluted at 1:100

Contact information

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Antibody | ELISA Kits | Protein | Reagents