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Anti-MYO6 Antibody

Catalog # AP51374

Product Information

Application	WB, IF/IC
Primary Accession	Q9UM54
Reactivity	Human, Mouse, Rat, Pig, Chicken
Host	Rabbit
Clonality	Polyclonal
Calculated MW	149691

Additional Information

Gene ID	4646
Other Names	KIAA0389; Unconventional myosin-VI; Unconventional myosin-6
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the N-term region of human MYO6. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	MYO6 (HGNC:7605)
Synonyms	KIAA0389
Function	Myosins are actin-based motor molecules with ATPase activity (By similarity). Unconventional myosins serve in intracellular movements (By similarity). Myosin 6 is a reverse-direction motor protein that moves towards the minus-end of actin filaments (PubMed:10519557). Has slow rate of actin-activated ADP release due to weak ATP binding (By similarity). Functions in a variety of intracellular processes such as vesicular membrane trafficking and cell migration (By similarity). Required for the structural integrity of the Golgi apparatus via the p53-dependent pro-survival pathway (PubMed:16507995). Appears to be involved in a very early step of clathrin-mediated endocytosis in polarized epithelial cells (PubMed:11447109). Together with TOM1, mediates delivery of endocytic cargo to autophagosomes thereby promoting autophagosome maturation and driving fusion with lysosomes (PubMed:23023224). Links TOM1 with autophagy receptors, such as TAX1BP1; CALCOCO2/NDP52 and OPTN

(PubMed:31371777). May act as a regulator of F-actin dynamics (By similarity). As part of the DISP complex, may regulate the association of septins with actin and thereby regulate the actin cytoskeleton (PubMed:29467281). May play a role in transporting DAB2 from the plasma membrane to specific cellular targets (By similarity). May play a role in the extension and network organization of neurites (By similarity). Required for structural integrity of inner ear hair cells (By similarity). Required for the correct localization of CLIC5 and RDX at the stereocilium base (By similarity). Modulates RNA polymerase II- dependent transcription (PubMed:16949370).

Cellular Location

Golgi apparatus, trans-Golgi network membrane; Peripheral membrane protein. Golgi apparatus. Nucleus. Cytoplasm, perinuclear region. Membrane, clathrin-coated pit. Cytoplasmic vesicle, clathrin-coated vesicle. Cell projection, filopodium. Cell projection, ruffle membrane. Cell projection, microvillus. Cytoplasm, cytosol. Cytoplasmic vesicle, autophagosome. Endosome Note=Also present in endocyctic vesicles (PubMed:16507995) Translocates from membrane ruffles, endocytic vesicles and cytoplasm to Golgi apparatus, perinuclear membrane and nucleus through induction by p53 and p53-induced DNA damage (PubMed:16507995). Recruited into membrane ruffles from cell surface by EGF-stimulation (PubMed:9852149) Colocalizes with DAB2 in clathrin-coated pits/vesicles (PubMed:11967127). Colocalizes with OPTN at the Golgi complex and in vesicular structures close to the plasma membrane (By similarity) Recruited to endosomes by TOM1 and TOM1L2 (PubMed:23023224) {ECO:0000250|UniProtKB:Q9I8D1, ECO:0000269|PubMed:11967127, ECO:0000269|PubMed:16507995, ECO:0000269|PubMed:23023224, ECO:0000269|PubMed:9852149} [Isoform 4]: Cytoplasmic vesicle, clathrin-coated vesicle membrane. Cell projection, ruffle membrane

Tissue Location

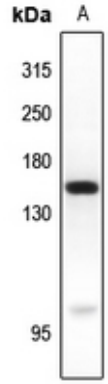
Expressed in most tissues examined including heart, brain, placenta, pancreas, spleen, thymus, prostate, testis, ovary, small intestine and colon. Highest levels in brain, pancreas, testis and small intestine. Also expressed in fetal brain and cochlea. Isoform 1 and isoform 2, containing the small insert,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

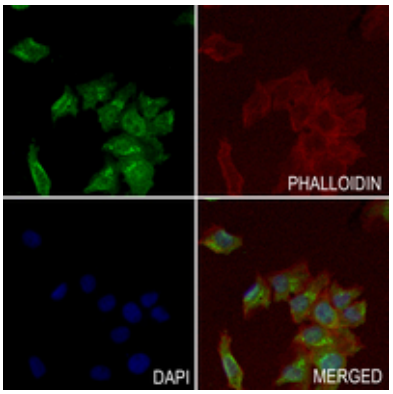
References

Avraham K.B.,et al.Hum. Mol. Genet. 6:1225-1231(1997).
Avraham K.B.,et al.Submitted (JUL-2000) to the EMBL/GenBank/DDBJ databases.
Kuehn M.H.,et al.Submitted (JAN-2000) to the EMBL/GenBank/DDBJ databases.
Nagase T.,et al.DNA Res. 4:141-150(1997).
Mungall A.J.,et al.Nature 425:805-811(2003).

Images

Western blot analysis of MYO6 expression in AML12 (A) whole cell lysates. (Predicted band size: 149 kD; Observed band size: 149 kD)





Immunofluorescent analysis of MYO6 staining in HepG2 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

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