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Myosin 1C (MYO1C) Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6372b

Product Information

Application	WB, IHC-P, E
Primary Accession	O00159
Other Accession	Q63355, Q27966
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB13032
Calculated MW	121682
Antigen Region	911-940

Additional Information

Gene ID	4641
Other Names	Unconventional myosin-Ic, Myosin I beta, MMI-beta, MMIb, MYO1C
Target/Specificity	This Myosin 1C (MYO1C) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 911-940 amino acids from the C-terminal region of human Myosin 1C (MYO1C).
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Myosin 1C (MYO1C) Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MYO1C
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. Involved in glucose transporter recycling in response to insulin by regulating movement of intracellular GLUT4-containing vesicles to the plasma membrane. Component of the hair cell's (the sensory cells of the inner ear) adaptation-motor complex. Acts as a mediator of adaptation of mechanoelectrical transduction in stereocilia of vestibular hair cells. Binds phosphoinositides and links the actin cytoskeleton to cellular membranes.

Cellular Location

Cytoplasm. Nucleus. Cytoplasm, cell cortex {ECO:0000250|UniProtKB:Q9WTI7}. Cell projection, stereocilium membrane {ECO:0000250|UniProtKB:Q92002}. Cytoplasmic vesicle {ECO:0000250|UniProtKB:Q9WTI7}. Cell projection, ruffle membrane. Note=Colocalizes with CABP1 and CIB1 at cell margin, membrane ruffles and punctate regions on the cell membrane (By similarity). Colocalizes in adipocytes with GLUT4 at actin-based membranes (By similarity). Colocalizes with GLUT4 at insulin-induced ruffles at the cell membrane (By similarity). Localizes transiently at cell membrane to region known to be enriched in PIP2 (By similarity) Activation of phospholipase C results in its redistribution to the cytoplasm (By similarity). Colocalizes with RNA polymerase II (PubMed:22736583). Translocates to nuclear speckles upon exposure to inhibitors of RNA polymerase II transcription (PubMed:22736583) {ECO:0000250|UniProtKB:Q9WTI7, ECO:0000269|PubMed:22736583}

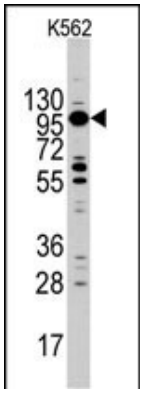
Background

MYO1C is a member of the unconventional myosin protein family, which are actin-based molecular motors. The protein is found in the cytoplasm, and one isoform with a unique N-terminus is also found in the nucleus. The nuclear isoform associates with RNA polymerase I and II and functions in transcription initiation. The mouse ortholog of this protein also functions in intracellular vesicle transport to the plasma membrane.

References

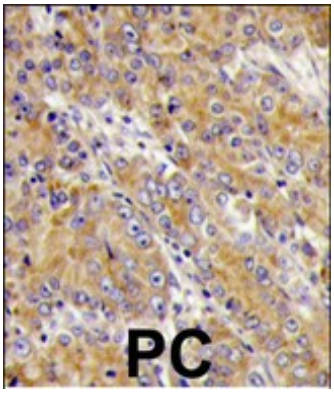
Crozet F.,Genomics 40:332-341(1997).

Images



Western blot analysis of MYO1C Antibody (C-term) (Cat.#AP6372b) in K562 cell line lysates (35ug/lane). MYO1C (arrow) was detected using the purified Pab.

Formalin-fixed and paraffin-embedded human prostata carcinoma tissue reacted with MYO1C antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been



evaluated.