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Anti-RAB10 Picoband Antibody

Catalog # ABO12474

Product Information

Application	WB
Primary Accession	P61026
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Ras-related protein Rab-10(RAB10) detection. Tested with WB in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	10890
Other Names	Ras-related protein Rab-10, RAB10
Calculated MW	22541
Application Details	Western blot, 0.1-0.5 □g/ml, Human, Mouse, Rat
Subcellular Localization	Cytoplasmic vesicle membrane ; Lipid-anchor ; Cytoplasmic side . Golgi apparatus membrane . Golgi apparatus, trans-Golgi network membrane . Endosome membrane . Recycling endosome membrane . Cytoplasmic vesicle, phagosome membrane . Cell projection, cilium . Endoplasmic reticulum membrane . Associates with SLC2A4/GLUT4 storage vesicles (PubMed:22908308). Localizes to the base of the cilium (PubMed:20576682). Transiently associates with phagosomes (By similarity). Localizes to the endoplasmic reticulum at domains of new tubule growth (PubMed:23263280). .
Source	Eukaryota
Protein Name	Ras-related protein Rab-10
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human RAB10 (153-185aa AKANINIEKAFLTLAEDILRKTPVKEPNSENVD), identical to the related mouse sequence, and different from the related rat sequence by one amino acid.
Purification	Immunogen affinity purified.

Cross Reactivity	No cross reactivity with other proteins.
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Protein Information

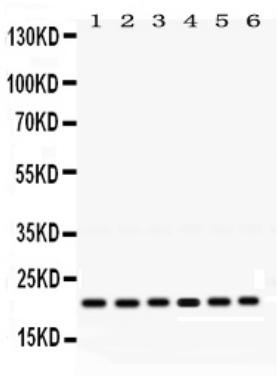
Name	RAB10 (HGNC:9759)
Function	The small GTPases Rab are key regulators of intracellular membrane trafficking, from the formation of transport vesicles to their fusion with membranes (PubMed:21248164). Rabs cycle between an inactive GDP-bound form and an active GTP-bound form that is able to recruit to membranes different set of downstream effectors directly responsible for vesicle formation, movement, tethering and fusion (PubMed:21248164). RAB10 is mainly involved in the biosynthetic transport of proteins from the Golgi to the plasma membrane (PubMed:21248164). Regulates, for instance, SLC2A4/GLUT4 glucose transporter-enriched vesicles delivery to the plasma membrane (By similarity). In parallel, RAB10 regulates the transport of TLR4, a toll-like receptor to the plasma membrane and therefore may be important for innate immune response (By similarity). Also plays a specific role in asymmetric protein transport to the plasma membrane (PubMed:16641372). In neurons, involved in axonogenesis through regulation of vesicular membrane trafficking toward the axonal plasma membrane (By similarity). In epithelial cells, regulates transport from the Golgi to the basolateral membrane (PubMed:16641372). May play a role in the basolateral recycling pathway and in phagosome maturation (By similarity). May play a role in endoplasmic reticulum dynamics and morphology controlling tubulation along microtubules and tubules fusion (PubMed:23263280). Together with LRRK2, RAB8A, and RILPL1, regulates ciliogenesis (PubMed:30398148). When phosphorylated by LRRK2 on Thr-73, binds RILPL1 and inhibits ciliogenesis (PubMed:30398148). Participates in the export of a subset of neosynthesized proteins through a Rab8- Rab10-Rab11-dependent endososomal export route (PubMed:32344433). Targeted to and stabilized on stressed lysosomes through LRRK2 phosphorylation where it promotes the extracellular release of lysosomal content through EHBP1 and EHNP1L1 effector proteins (PubMed:30209220).
Cellular Location	Cytoplasmic vesicle membrane; Lipid-anchor; Cytoplasmic side. Golgi apparatus membrane. Golgi apparatus, trans-Golgi network membrane {ECO:0000250|UniProtKB:P24409}. Endosome membrane Recycling endosome membrane {ECO:0000250|UniProtKB:P24409}. Cytoplasmic vesicle, phagosome membrane {ECO:0000250|UniProtKB:P24409}. Cytoplasm, cytoskeleton, cilium basal body. Endoplasmic reticulum membrane. Cytoplasm, perinuclear region. Lysosome. Note=Associates with SLC2A4/GLUT4 storage vesicles (PubMed:22908308). Localizes to the base of the cilium when phosphorylated by LRRK2 on Thr-73 (PubMed:20576682, PubMed:30398148). Transiently associates with phagosomes (By similarity). Localizes to the endoplasmic reticulum at domains of new tubule growth (PubMed:23263280). Colocalizes with MICAL1, GRAF1/ARHGAP26 and GRAF2/ARHGAP10 on endosomal tubules (PubMed:32344433). Localizes to enlarged lysosomes through LRRK2 phosphorylation (PubMed:30209220). {ECO:0000250|UniProtKB:P24409, ECO:0000269|PubMed:20576682, ECO:0000269|PubMed:22908308, ECO:0000269|PubMed:23263280, ECO:0000269|PubMed:30209220, ECO:0000269|PubMed:30398148, ECO:0000269|PubMed:32344433}
Tissue Location	Expressed in the hippocampus (PubMed:29562525). Expressed in neutrophils

(at protein level) (PubMed:29127255) Expressed in the testis (at protein level) (PubMed:28067790)

Background

Ras-related protein Rab-10 is a protein that in humans is encoded by the RAB10 gene. RAB10 belongs to the RAS superfamily of small GTPases. And RAB proteins localize to exocytic and endocytic compartments and regulate intracellular vesicle trafficking. The RAB10 gene is mapped to chromosome 2p23.1-p22.3 by radiation hybrid analysis. It was found that the purified recombinant GAP domain of human AS160 showed GAP activity with RAB2A, RAB8A, RAB10, and RAB14, but not with 14 other RABs. Immunoblot analysis showed that these RABs associated with Glut4-positive vesicles in mouse adipocytes. Thereby, it concluded that AK160 functions as a RAB GAP and that RABs may participate in GLUT4 translocation.

Images



Anti- RAB10 Picoband antibody, ABO12474, Western blottingAll lanes: Anti RAB10 (ABO12474) at 0.5ug/mlLane 1: Rat Brain Tissue Lysate at 50ugLane 2: Mouse Thymus Tissue Lysate at 50ugLane 3: Mouse Brain Tissue Lysate at 50ugLane 4: HELA Whole Cell Lysate at 40ugLane 5: MCF-7 Whole Cell Lysate at 40ugLane 6: COLO320 Whole Cell Lysate at 40ugPredicted bind size: 22KDObserved bind size: 22KD

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.