

Anti-RAB10 Picoband Antibody
Catalog # ABO12474**Specification****Anti-RAB10 Picoband Antibody - 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.

Anti-RAB10 Picoband Antibody - Additional Information

Gene ID 10890

Other Names

Ras-related protein Rab-10, RAB10

Calculated MW

22541 MW KDa

Application Details

Western blot, 0.1-0.5 µg/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). .

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 AKANINIEKAFLTLAEDILRKTPVKEPNSENV), 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 reconstitution, 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.

Anti-RAB10 Picoband Antibody - 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](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/21248164)). That Rab is mainly involved in the biosynthetic transport of proteins from the Golgi to the plasma membrane (PubMed: [21248164](http://www.uniprot.org/citations/21248164)). Regulates, for instance, SLC2A4/GLUT4 glucose transporter-enriched vesicles delivery to the plasma membrane (By similarity). In parallel, it 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](http://www.uniprot.org/citations/16641372)). In neurons, it is involved in axonogenesis through regulation of vesicular membrane trafficking toward the axonal plasma membrane (By similarity). In epithelial cells, it regulates transport from the Golgi to the basolateral membrane (PubMed: [16641372](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/23263280)). Together with LRRK2, RAB8A, and RILPL1, it regulates ciliogenesis (PubMed: [30398148](http://www.uniprot.org/citations/30398148)). When phosphorylated by LRRK2 on Thr-73, binds RILPL1 and inhibits ciliogenesis (PubMed: [30398148](http://www.uniprot.org/citations/30398148)). Participates in the export of a subset of neosynthesized proteins through a Rab8- Rab10-Rab11-dependent endosomal export route (PubMed: [32344433](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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

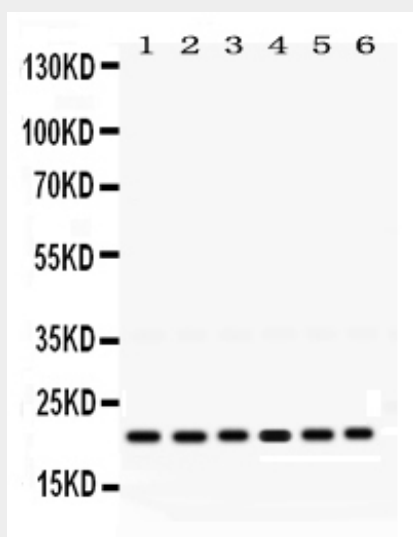
Expressed in the hippocampus (PubMed:29562525). Expressed in neutrophils (at protein level) (PubMed:29127255) Expressed in the testis (at protein level) (PubMed:28067790)

Anti-RAB10 Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-RAB10 Picoband Antibody - 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

Anti-RAB10 Picoband Antibody - 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.