

Anti-RAB13 Picoband Antibody
Catalog # ABO12476**Specification**

Anti-RAB13 Picoband Antibody - Product Information

Application	WB, IHC
Primary Accession	P51153
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Ras-related protein Rab-13(RAB13) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-RAB13 Picoband Antibody - Additional Information

Gene ID 5872

Other Names

Ras-related protein Rab-13, Cell growth-inhibiting gene 4 protein, RAB13

Calculated MW

22774 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Mouse, Rat, Human, By Heat
Western blot, 0.1-0.5 µg/ml, Human, Rat

Subcellular Localization

Cell membrane ; Lipid-anchor ; Cytoplasmic side . Cytoplasmic vesicle membrane ; Lipid- anchor ; Cytoplasmic side . Cell junction, tight junction . Golgi apparatus, trans-Golgi network membrane . Recycling endosome membrane . Cell projection, lamellipodium . Tight junctions or associated with vesicles scattered throughout the cytoplasm in cells lacking tight junctions (PubMed:8294494). Relocalizes to the leading edge of lamellipodia in migrating endothelial cells (By similarity). .

Tissue Specificity

Detected in several types of epithelia, including intestine, kidney, liver and in endothelial cells.

Protein Name

Ras-related protein Rab-13

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Na₃.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human RAB13 (121-150aa NKCDMEAKRKVQKEQADKLAREHGIRFFET), different from the related mouse and rat sequences by four amino acids.

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-RAB13 Picoband Antibody - Protein Information**Name** RAB13**Function**

The small GTPases Rab are key regulators of intracellular membrane trafficking, from the formation of transport vesicles to their fusion with membranes. Rabs cycle between an inactive GDP-bound form and an active GTP-bound form that is able to recruit to membranes different sets of downstream effectors directly responsible for vesicle formation, movement, tethering and fusion. That Rab is involved in endocytic recycling and regulates the transport to the plasma membrane of transmembrane proteins like the tight junction protein OCLN/occludin. Thereby, it regulates the assembly and the activity of tight junctions. Moreover, it may also regulate tight junction assembly by activating the PKA signaling pathway and by reorganizing the actin cytoskeleton through the activation of the downstream effectors PRKACA and MICALL2 respectively. Through its role in tight junction assembly, may play a role in the establishment of Sertoli cell barrier. Plays also a role in angiogenesis through regulation of endothelial cells chemotaxis. Also involved in neurite outgrowth. Has also been proposed to play a role in post-Golgi membrane trafficking from the TGN to the recycling endosome. Finally, it has been involved in insulin-induced transport to the plasma membrane of the glucose transporter GLUT4 and therefore may play a role in glucose homeostasis.

Cellular Location

Cell membrane; Lipid-anchor; Cytoplasmic side. Cytoplasmic vesicle membrane; Lipid-anchor; Cytoplasmic side. Cell junction, tight junction. Golgi apparatus, trans-Golgi network membrane Recycling endosome membrane. Cell projection, lamellipodium {ECO:0000250|UniProtKB:Q9DD03}. Note=Tight junctions or associated with vesicles scattered throughout the cytoplasm in cells lacking tight junctions (PubMed:8294494) Relocalizes to the leading edge of lamellipodia in migrating endothelial cells (By similarity). {ECO:0000250|UniProtKB:Q9DD03, ECO:0000269|PubMed:8294494}

Tissue Location

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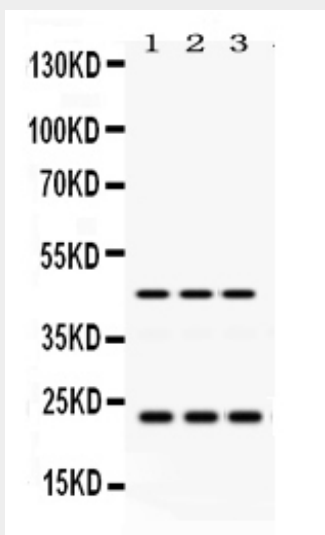
Anti-RAB13 Picoband Antibody - Protocols

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

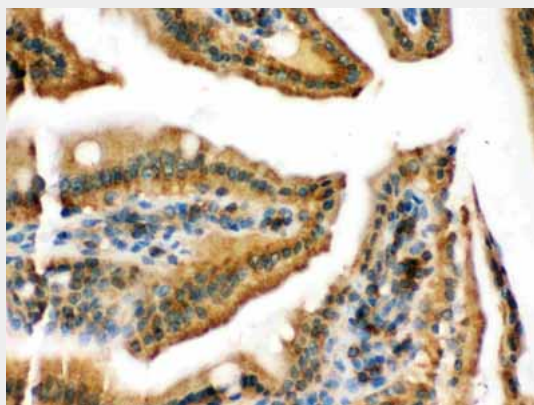
- [Western Blot](#)

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

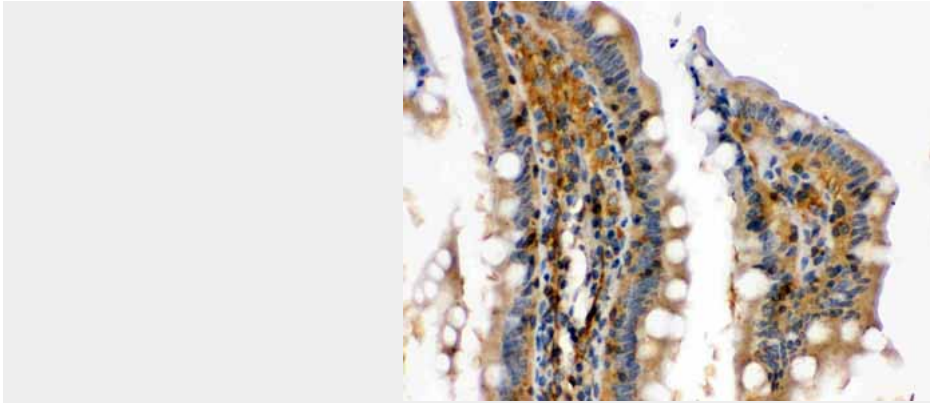
Anti-RAB13 Picoband Antibody - Images



Anti- RAB13 Picoband antibody, ABO12476, Western blottingAll lanes: Anti RAB13 (ABO12476) at 0.5ug/mlLane 1: Rat Kidney Tissue Lysate at 50ugLane 2: HELA Whole Cell Lysate at 40ugLane 3: HEPG2 Whole Cell Lysate at 40ugPredicted bind size: 23KD, 45KDObserved bind size: 23KD, 45KD



Anti- RAB13 Picoband antibody, ABO12476, IHC(P)IHC(P): Mouse Intestine Tissue



Anti- RAB13 Picoband antibody, ABO12476, IHC(P)IHC(P): Rat Intestine Tissue

Anti-RAB13 Picoband Antibody - Background

Ras-related protein Rab-13 is a protein that in humans is encoded by the RAB13 gene. This gene is a member of the Rab family of small G proteins and plays a role in regulating membrane trafficking between trans-Golgi network (TGN) and recycling endosomes (RE). The encoded protein is involved in the assembly of tight junctions, which are components of the apical junctional complex (AJC) of epithelial cells. The AJC plays a role in forming a barrier between luminal contents and the underlying tissue. Additional functions associated with the protein include endocytic recycling of occludin, regulation of epithelial cell scattering, neuronal regeneration and regulation of neurite outgrowth. Alternately spliced transcript variants have been observed for this gene. A pseudogene associated with this gene is located on chromosome 12.