

RAB13 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP6667c

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	P51153
Other Accession	Q58DS5
Reactivity	Human, Mouse
Predicted	Rat, Rabbit, Bovine, Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB19805
Calculated MW	22774
Antigen Region	109-137

Additional Information

Gene ID	5872
Other Names	Ras-related protein Rab-13, Cell growth-inhibiting gene 4 protein, RAB13
Target/Specificity	This RAB13 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 109-137 amino acids from the Central region of human RAB13.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 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	RAB13 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	RAB13 (HGNC:9762)
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. RAB13 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

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

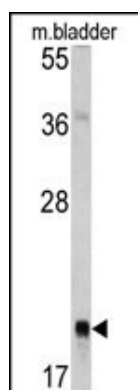
Background

RAB13 can participate in polarized transport, in the assembly and/or the activity of tight junctions.

References

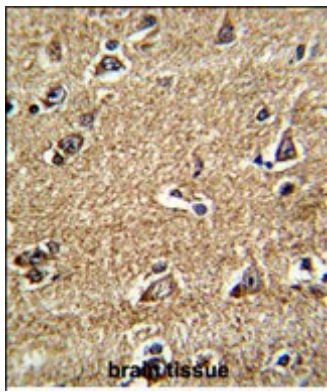
Nokes,R.L., J. Cell Biol. 182 (5), 845-853 (2008)
Kanda,I., Oncogene 27 (12), 1687-1695 (2008)

Images

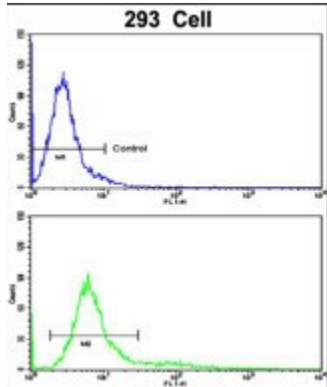


Western blot analysis of RAB13 antibody (Center) (Cat. #AP6667c) in mouse bladder tissue lysates (35ug/lane). RAB13 (arrow) was detected using the purified Pab.

Formalin-fixed and paraffin-embedded human brain tissue reacted with RAB13 Antibody (Center), 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.



Flow cytometric analysis of 293 cells using RAB13 Antibody (Center)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

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