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RAB13 Rabbit pAb

Catalog # AP99479

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	P51153
Other Accession	P51153
Predicted	Rat, Pig, Human, Mouse, Rabbit, Zebrafish, Dog, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	22774
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human RAB13
Epitope Specificity	51-150/203
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	Preservative: 0.02% Proclin300, Constituents: 1% BSA, 0.01M PBS, pH7.4.
SIMILARITY	Belongs to the small GTPase superfamily. Rab family.
SUBUNIT	Interacts (GTP-bound form) with MICALL2; competes with RAB8A and is involved in tight junctions assembly. Interacts (GTP-bound form) with MICALL1. Interacts with PRKACA; downstream effector of RAB13 involved in tight junction assembly. Interacts with GRB2; may recruit RAB13 to the leading edge of migrating endothelial cells where it can activate RHOA. Interacts (isoprenylated form) with PDE6D; dissociates RAB13 from membranes. Interacts with CCDC64B/BICDR2. Interacts with LEPROT and LEPROTL1.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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. [provided by RefSeq, Jan 2013]

Additional Information

Gene ID	5872
Other Names	GIG4; RAB13_HUMAN; RAB13; Cell growth-inhibiting gene 4 protein; 3.6.5.2; RAB13, member RAS oncogene family

Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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

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