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RAB21 Rabbit pAb

Catalog # AP97197

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9UL25
Other Accession	Q9UL25
Reactivity	Rat
Predicted	Human, Mouse, Rabbit, Chicken, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	24348
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human RAB21.
Epitope Specificity	51-150/225
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the small GTPase superfamily. Rab family.
SUBUNIT	Interacts with the cytoplasmic tail of integrins ITGA1, ITGA2, ITGA5, ITGA6, ITGA11 and ITGB1. Interacts with RABGEF1 (via VPS9 domain).
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 belongs to the Rab family of monomeric GTPases, which are involved in the control of cellular membrane traffic. The encoded protein plays a role in the targeted trafficking of integrins via its association with integrin alpha tails. As a consequence, the encoded protein is involved in the regulation of cell adhesion and migration. Expression of this gene is associated with a poor prognosis for glioma patients. This gene is downregulated by the tumor suppressor miR-200b, and miRNA-200b is itself downregulated in glioma tissues. [provided by RefSeq, Nov 2015]

Additional Information

Gene ID	23011
Other Names	RAB21_HUMAN; RAB21; 3.6.5.2; KIAA0118; RAB21, member RAS oncogene family
Dilution	IHC-P=1:100-500,IHC-F=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	RAB21 (HGNC:18263)
Synonyms	KIAA0118
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 (PubMed:18804435, PubMed:25648148, PubMed:31455601). RAB21 is involved in membrane trafficking control (PubMed:18804435, PubMed:25648148). During the mitosis of adherent cells, controls the endosomal trafficking of integrins which is required for the successful completion of cytokinesis (PubMed:18804435). Regulates integrin internalization and recycling, but does not influence the traffic of endosomally translocated receptors in general (By similarity). As a result, may regulate cell adhesion and migration (By similarity). Involved in neurite growth (By similarity). Following SBF2/MTMT13-mediated activation in response to starvation-induced autophagy, binds to and regulates SNARE protein VAMP8 endolysosomal transport required for SNARE-mediated autophagosome-lysosome fusion (PubMed:25648148). Modulates protein levels of the cargo receptors TMED2 and TMED10, and required for appropriate Golgi localization of TMED10 (PubMed:31455601).
Cellular Location	Endoplasmic reticulum membrane; Lipid-anchor. Golgi apparatus, trans-Golgi network. Golgi apparatus membrane. Early endosome membrane. Cytoplasmic vesicle membrane. Cleavage furrow. Cell projection, neuron projection {ECO:0000250|UniProtKB:P35282}. Note=Colocalizes with ANKRD27 and VAMP7 in neurites (By similarity). In nonpolarized epithelial Caco-2 cells, found in the endoplasmic reticulum; in polarized cells, observed in vesicles in the apical cytoplasm (PubMed:10887961). During mitosis, in mid-telophase, localized in the ingressing cleavage furrow (PubMed:18804435). In late telophase, detected at the opposite poles of the daughter cells, in vesicles at the base of lamellipodia formed by the separating daughter cells (PubMed:18804435) {ECO:0000250|UniProtKB:P35282, ECO:0000269|PubMed:10887961, ECO:0000269|PubMed:18804435}
Tissue Location	Widely expressed. In jejunal tissue, predominantly expressed in the apical region of the epithelial cell layer of the villi, weak expression, if any, in the crypt epithelium. Capillary endothelium and some cell types in the lamina propria also show expression.

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