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RAB10 Rabbit pAb

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Catalog # AP54435

Product Information

Application	IHC-P, IHC-F, IF
Reactivity	Human, Mouse, Rat
Predicted	Sheep, Dog, Chicken
Host	Rabbit
Clonality	Polyclonal
Calculated MW	23 KDa
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human RAB10
Epitope Specificity	41-140/200
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasmic vesicle membrane; Lipid-anchor(Probable); Cytoplasmic side (Probable). Golgi apparatus,trans-Golgi network membrane (By similarity). Endosome membrane.Recycling endosome membrane. Cytoplasmic vesicle, phagosomemembrane (By similarity). Cell projection, cilium. Endoplasmicreticulum membrane. Note=Associates with SLC2A4/GLUT4 storagevesicles. Localizes to the base of the cilium. Transientlyassociates with phagosomes (By similarity). According toPubMed:23263280 localizes to the endoplasmic reticulum at domainsof new tubule growth.
SIMILARITY	Belongs to the small GTPase superfamily. Rab family.
SUBUNIT	Interacts with MYO5A; mediates the transport to theplasma membrane of SLC2A4/GLUT4 storage vesicles. Interacts withGDI1 and maybe with GDI2; negatively regulates RAB10 associationwith membranes and activation. Interacts (GDP-bound form) withLLGL1; the interaction is direct and promotes RAB10 associationwith membranes and activation through competition with the Rabinhibitor GDI1 (By similarity). Interacts with EXOC4; probablyassociates with the exocyst (By similarity).
DISEASE	Belongs to the small GTPase superfamily. Rab family.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The Ras-related superfamily of guanine nucleotide binding proteins, which includes the Ral/Rec, Rap, R-Ras, and Rho/Rab subfamilies, exhibit 30-60% homology with Ras p21 (1). Accumulating data suggests an important role for Rab proteins, either in endocytosis or in biosynthetic protein transport (1,2). The transport of newly synthesized proteins from the endoplasmic reticulum to various stacks of the Golgi complex and to secretory vesicles involves at each stage the movement of carrier vesicles, a process that appears to involve Rab protein function (1-6). The possibility that Rab proteins might also direct the exocytosis from secretory vesicles to the plasma membrane is supported by the observation that in yeast, the SEC4 protein, which is 40% homologous to Rab proteins, is associated with secretory vesicles (9). Several members of the Rab subfamily have been identified, each of which is found at a particular

stage of a membrane transport pathway (3-8).

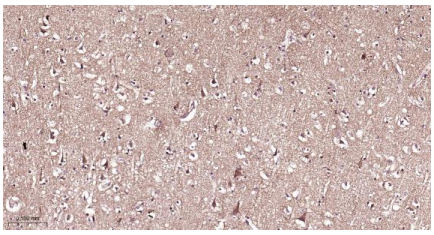
Additional Information

Other Names	Ras-related protein Rab-10, 3.6.5.2, RAB10
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.

Background

The Ras-related superfamily of guanine nucleotide binding proteins, which includes the Ral/Rec, Rap, R-Ras, and Rho/Rab subfamilies, exhibit 30-60% homology with Ras p21 (1). Accumulating data suggests an important role for Rab proteins, either in endocytosis or in biosynthetic protein transport (1,2). The transport of newly synthesized proteins from the endoplasmic reticulum to various stacks of the Golgi complex and to secretory vesicles involves at each stage the movement of carrier vesicles, a process that appears to involve Rab protein function (1-6). The possibility that Rab proteins might also direct the exocytosis from secretory vesicles to the plasma membrane is supported by the observation that in yeast, the SEC4 protein, which is 40% homologous to Rab proteins, is associated with secretory vesicles (9). Several members of the Rab subfamily have been identified, each of which is found at a particular stage of a membrane transport pathway (3-8).

Images



Paraformaldehyde-fixed, paraffin embedded Human Cerebrum; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with RAB10 Polyclonal Antibody, Unconjugated (AP54435) at 1:200 overnight at 4°C, followed by conjugation to the AP54435-HRP and DAB (C-0010) staining.