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RAB11B Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12943b

Product Information

Application	IHC-P, WB, E
Primary Accession	Q15907
Other Accession	O35509, P46638, Q3MHP2, NP_004209.2
Reactivity	Human, Rat
Predicted	Bovine, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	24489
Antigen Region	164-193

Additional Information

Gene ID	9230
Other Names	Ras-related protein Rab-11B, GTP-binding protein YPT3, RAB11B, YPT3
Target/Specificity	This RAB11B antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 164-193 amino acids from the C-terminal region of human RAB11B.
Dilution	IHC-P~~1:100~500 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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	RAB11B Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	RAB11B (HGNC:9761)
Synonyms	YPT3
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 set of downstream effectors directly responsible for vesicle formation, movement, tethering and fusion (PubMed:14627637, PubMed:19029296, PubMed:19244346, PubMed:20717956, PubMed:21248079, PubMed:22129970, PubMed:26032412). RAB11B plays a role in endocytic recycling, regulating apical recycling of several transmembrane proteins including cystic fibrosis transmembrane conductance regulator/CFTR, epithelial sodium channel/ENaC, potassium voltage-gated channel, and voltage-dependent L-type calcium channel. May also regulate constitutive and regulated secretion, like insulin granule exocytosis. Required for melanosome transport and release from melanocytes. Also regulates V-ATPase intracellular transport in response to extracellular acidosis (PubMed:14627637, PubMed:19029296, PubMed:19244346, PubMed:20717956, PubMed:21248079, PubMed:22129970). Promotes Rabin8/RAB3IP preciliary vesicular trafficking to mother centriole by forming a ciliary targeting complex containing Rab11, ASAP1, Rabin8/RAB3IP, RAB11FIP3 and ARF4, thereby regulating ciliogenesis initiation (PubMed:25673879). On the contrary, upon LPAR1 receptor signaling pathway activation, interaction with phosphorylated WDR44 prevents Rab11-RAB3IP-RAB11FIP3 complex formation and cilia growth (PubMed:31204173). Also interacts with RABL3 to promote ciliary vesicle formation (PubMed:36052645).

Cellular Location

Recycling endosome membrane {ECO:0000250|UniProtKB:P46638}; Lipid-anchor {ECO:0000250|UniProtKB:P46638}; Cytoplasmic side {ECO:0000250|UniProtKB:P46638}. Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane {ECO:0000250|UniProtKB:O35509}; Lipid-anchor {ECO:0000250|UniProtKB:O35509}; Cytoplasmic side {ECO:0000250|UniProtKB:O35509}. Cytoplasmic vesicle, phagosome membrane; Lipid-anchor; Cytoplasmic side. Cytoplasmic vesicle. Note=Recruited to phagosomes containing S.aureus. Colocalizes with RAB11AFIP1 on punctate vesicles (PubMed:26032412).

Background

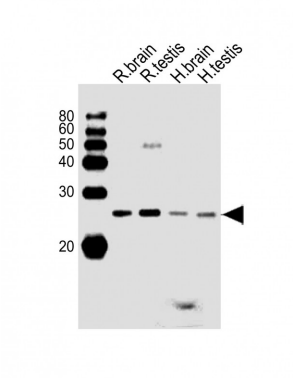
The Ras superfamily of small GTP-binding proteins, which includes the Ras (see MIM 190020), Ral (see MIM 179550), Rho (see MIM 165390), Rap (see MIM 179520), and Rab (see MIM 179508) families, is involved in controlling a diverse set of essential cellular functions. The Rab family, including RAB11B, appears to play a critical role in regulating exocytotic and endocytotic pathways (summary by Zhu et al., 1994 [PubMed 7811277]).[supplied by OMIM].

References

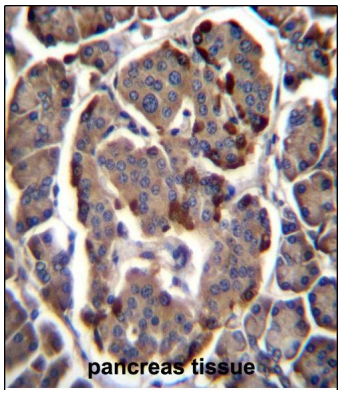
Agop-Nersesian, C., et al. PLoS Pathog. 6 (7), E1001029 (2010) :
Silvis, M.R., et al. Mol. Biol. Cell 20(8):2337-2350(2009)
Kathiresan, S., et al. Nat. Genet. 41(1):56-65(2009)
Scapin, S.M., et al. J. Struct. Biol. 154(3):260-268(2006)
Khvotchev, M.V., et al. J. Neurosci. 23(33):10531-10539(2003)

Images

All lanes : Anti-(RAT) Rab11b Antibody (C-term) at 1:1000 dilution Lane 1: rat brain lysates Lane 2: rat testis lysates Lane 3: human brain lysates Lane 4: human testis lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000



dilution Predicted band size : 24 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



RAB11B Antibody (C-term) (Cat. #AP12943b)immunohistochemistry analysis in formalin fixed and paraffin embedded human pancreas tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of RAB11B Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

Citations

- Rab11 is required for lysosome exocytosis through the interaction with Rab3a, Sec15 and GRAB
- P53- and mevalonate pathway-driven malignancies require Arf6 for metastasis and drug resistance.