

RAB11B Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP12943b

Product Information

Application IHC-P, WB, E Primary Accession Q15907

Other Accession 035509, 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 (<u>HGNC:9761</u>)

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). The small Rab GTPase 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).

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].

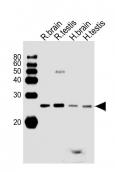
References

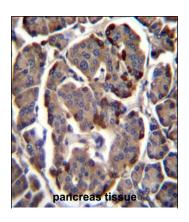
Agop-Nersesian, C., et al. PLoS Pathog. 6 (7), E1001029 (2010): Silvis, M.R., et al. Mol. Biol. Cell 20(8):2337-2350(2009) Kathiresan, S., et al. Nat. Genet. 41(1):56-65(2009) Scapin, S.M., et al. J. Struct. Biol. 154(3):260-268(2006) Khvotchev, M.V., et al. J. Neurosci. 23(33):10531-10539(2003)

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.

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