

Rab11b (6D13) Rat Monoclonal Antibody

Rab11b (6D13) Rat Monoclonal Antibody Catalog # AP93647

Product Information

Primary Accession P46638
Clonality Monoclonal
Calculated MW 24489

Additional Information

Gene ID 19326

Other Names Ras-related protein Rab-11B, 3.6.5.2, Rab11b

Storage Conditions -20°C

Protein Information

Name Rab11b {ECO:0000312 | MGI:MGI:99425}

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. 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. 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. On the contrary, upon LPAR1 receptor signaling pathway activation, interaction with phosphorylated WDR44 prevents Rab11-RAB3IP-RAB11FIP3 complex formation and cilia

growth (By similarity).

Cellular Location Recycling endosome membrane; Lipid-anchor; Cytoplasmic side. 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

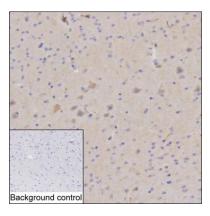
membrane {ECO:0000250 | UniProtKB:Q15907}; Lipid-anchor

{ECO:0000250|UniProtKB:Q15907}; Cytoplasmic side {ECO:0000250|UniProtKB:Q15907}. Cytoplasmic vesicle {ECO:0000250|UniProtKB:Q15907}. Note=Colocalizes with RAB11AFIP1 on punctate vesicles. {ECO:0000250|UniProtKB:Q15907}

Tissue Location

Abundantly expressed in brain, heart and testis. Also detected in kidney and pancreatic islets

Images



IHC-P analysis of mouse brain tissue by Rab11b antibody (AP93647). IHC-P was performed using sections of the formalin-fixed paraffin-embedded mouse brain tissue. Antigen was retrieved through addition of boiling Tris/EDTA buffer pH 9 in a pressure cooker for 3 min. Endogenous peroxidase activity was quenched by incubating the sections with 3% H2O2for 30 min at room temperature. The sections were then incubated with Rab11b antibody (AP93647) at 20 µg/mL at room temperature for 1 h. Poly-peroxidase conjugated goat anti-mouse IgG (which cross reacts with rat IgG) was used as the secondary antibody. Diaminobenzidine was used as the chromogen. The section was counterstained with hematoxylin. A tissue section incubated with phosphate-buffered saline followed by incubation with the secondary antibody was used as the background control. Result: Neurons are positively stained at the cytoplasm.

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