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Rab11b (15P12) Rat Monoclonal Antibody

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Catalog # AP93631

Specification

Rab11b (15P12) Rat Monoclonal Antibody - Product Information

Application	IHC
Primary Accession	P46638
Reactivity	Mouse
Clonality	Monoclonal
Calculated MW	24489

Rab11b (15P12) Rat Monoclonal Antibody - Additional Information

Gene ID 19326

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

Dilution
IHC~~1:100~500

Storage Conditions
-20℃

Rab11b (15P12) Rat Monoclonal Antibody - 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}

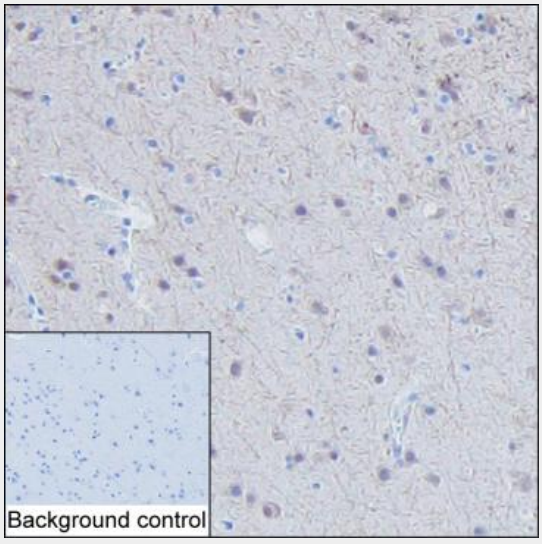
Tissue Location
Abundantly expressed in brain, heart and testis. Also detected in kidney and pancreatic islets

Rab11b (15P12) Rat Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Rab11b (15P12) Rat Monoclonal Antibody - Images



IHC-P analysis of human cerebral cortex tissue by anti-Mouse Rab11b antibody (AP93631). IHC-P was performed using sections of the formalin-fixed paraffin-embedded human cerebral cortex 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% H2O2 for 30 min at room temperature. The sections were then incubated with anti-Mouse Rab11b primary antibody (AP93631) at 5 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: Cytoplasm of neuronal cells and neuropil are positively stained.