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Rab3a Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO2128a

Specification

Rab3a Antibody - Product Information

Application	**E, WB, FC**
Primary Accession	P20336
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**25kDa KDa**

Description
RAB3A (RAB3A, member RAS oncogene family) is a protein-coding gene. Diseases associated with RAB3A include choroideremia. GO annotations related to this gene include protein C-terminus binding and GTP binding. An important paralog of this gene is RAB10.

Immunogen
Purified recombinant fragment of human Rab3a (AA: 1-220) expressed in E. Coli.

Formulation
Purified antibody in PBS with 0.05% sodium azide

Rab3a Antibody - Additional Information

Gene ID 5864

Other Names
Ras-related protein Rab-3A, RAB3A

Dilution
E~~1/10000
WB~~1/500 - 1/2000
FC~~1/200 - 1/400

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Rab3a Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Rab3a Antibody - Protein Information

Name RAB3A

Function
Small GTP-binding protein that plays a central role in regulated exocytosis and secretion. Controls the recruitment, tethering and docking of secretory vesicles to the plasma membrane (By similarity). Upon stimulation, switches to its active GTP-bound form, cycles to vesicles and recruits effectors such as RIMS1, RIMS2, Rabphilin-3A/RPH3A, RPH3AL or SYTL4 to help the docking of vesicules onto the plasma membrane (By similarity). Upon GTP hydrolysis by GTPase-activating protein, dissociates from the vesicle membrane allowing the exocytosis to proceed (By similarity). Stimulates insulin secretion through interaction with RIMS2 or RPH3AL effectors in pancreatic beta cells (By similarity). Regulates calcium-dependent lysosome exocytosis and plasma membrane repair (PMR) via the interaction with 2 effectors, SYTL4 and myosin-9/MYH9 (PubMed:27325790). Acts as a positive regulator of acrosome content secretion in sperm cells by interacting with RIMS1 (PubMed:22248876, PubMed:30599141). Also plays a role in the regulation of dopamine release by interacting with synaptotagmin I/SYT (By similarity). Interacts with MADD (via uDENN domain); the GTP-bound form is preferred for interaction (By similarity).

Cellular Location
Cytoplasm, cytosol {ECO:0000250|UniProtKB:P63012}. Lysosome Cytoplasmic vesicle, secretory vesicle {ECO:0000250|UniProtKB:P63012} Cell projection, axon {ECO:0000250|UniProtKB:P63011}. Cell membrane; Lipid-anchor; Cytoplasmic side. Presynapse {ECO:0000250|UniProtKB:P63011}. Postsynapse {ECO:0000250|UniProtKB:P63011}. Note=Cycles between a vesicle- associated GTP-bound form and a cytosolic GDP-bound form {ECO:0000250|UniProtKB:P63012}

Tissue Location
Specifically expressed in brain.

Rab3a 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