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RFIP3 Rabbit pAb

Catalog # AP96211

Product Information

Application	WB
Primary Accession	O75154
Other Accession	O75154
Reactivity	Human
Predicted	Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	82440
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human FIP3
Epitope Specificity	651-756/756
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Recycling endosome membrane; Peripheral membrane protein. Cytoplasm; cytoskeleton; centrosome. Cleavage furrow. Midbody.
SIMILARITY	Contains 2 EF-hand domains. Contains 1 FIP-RBD domain.
SUBUNIT	Homodimer. Forms a complex with Rab11 (RAB11A or RAB11B) and ARF6. Interacts with RAB11A; the interaction is direct. Interacts with RAB11B, RAB25 and RAB11FIP4. Interacts with ARF6; according to PubMed:16148947, it specifically interacts with ARF6 but not ARF5. Interacts with ARF6; according to PubMed:17030804 but not PubMed:16148947. Interacts with RACGAP1/MgcRacGAP; interaction takes place during late stage of cytokinesis and is required for recruitment to the midbody. Interacts with ASAP1 and EXOC7.
Post-translational modifications	Phosphorylated at Ser-102 by CDK1 during metaphase, and dephosphorylated as cells enter telophase.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Proteins of the large Rab GTPase family (see RAB1A; MIM 179508) have regulatory roles in the formation, targeting, and fusion of intracellular transport vesicles. RAB11FIP3 is one of many proteins that interact with and regulate Rab GTPases (Hales et al., 2001 [PubMed 11495908]).[supplied by OMIM, Mar 2008]

Additional Information

Gene ID	9727
Other Names	CART1; FIP3; FIP3-Rab11; Rab11-FIP3; LRRGT00043; RGD1308952; RFIP3_HUMAN; RAB11FIP3; Arfophilin-1; EF hands-containing Rab-interacting protein (Eferin); MU-MB-17.148; ARFO1; KIAA0665; RAB11 family interacting

protein 3; RAB11 family interacting protein 3 (class II)

Dilution WB=1:500-2000

Storage Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name RAB11FIP3 (HGNC:17224)

Synonyms ARFO1, KIAA0665

Function Downstream effector molecule for Rab11 GTPase which is involved in endocytic trafficking, cytokinesis and intracellular ciliogenesis by participating in membrane delivery (PubMed:15601896, PubMed:16148947, PubMed:17394487, PubMed:17628206, PubMed:18511905, PubMed:19327867, PubMed:20026645, PubMed:25673879, PubMed:26258637, PubMed:31204173). Recruited by Rab11 to endosomes where it links Rab11 to dynein motor complex (PubMed:20026645). The functional Rab11- RAB11FIP3-dynein complex regulates the movement of peripheral sorting endosomes (SE) along microtubule tracks toward the microtubule organizing center/centrosome, generating the endocytic recycling compartment (ERC) during interphase of cell cycle (PubMed:17394487, PubMed:20026645). Facilitates the interaction between dynein and dynactin and activates dynein processivity (PubMed:25035494). Binding with ASAP1 is needed to regulate the pericentrosomal localization of recycling endosomes (By similarity). The Rab11-RAB11FIP3 complex is also implicated in the transport during telophase of vesicles derived from recycling endosomes to the cleavage furrow via centrosome-anchored microtubules, where the vesicles function to deliver membrane during late cytokinesis and abscission (PubMed:15601896, PubMed:16148947). The recruitment of Rab11-RAB11FIP3-containing endosomes to the cleavage furrow and tethering to the midbody is co-mediated by RAB11FIP3 interaction with ARF6-exocyst and RACGAP1-MKLP1 tethering complexes (PubMed:17628206, PubMed:18511905). Also involved in the Rab11-Rabin8- Rab8 ciliogenesis cascade by facilitating the orderly assembly of a ciliary targeting complex containing Rab11, ASAP1, Rabin8/RAB3IP, RAB11FIP3 and ARF4, which directs preciliary vesicle trafficking to mother centriole and ciliogenesis initiation (PubMed:26258637, PubMed:31204173). Also promotes the activity of Rab11 and ASAP1 in the ARF4-dependent Golgi-to-cilia transport of the sensory receptor rhodopsin (PubMed:25673879). Competes with WDR44 for binding to Rab11, which controls intracellular ciliogenesis pathway (PubMed:31204173). May play a role in breast cancer cell motility by regulating actin cytoskeleton (PubMed:19327867).

Cellular Location Endosome membrane. Recycling endosome membrane; Peripheral membrane protein. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cleavage furrow Midbody. Golgi apparatus membrane; Peripheral membrane protein. Golgi apparatus, trans-Golgi network membrane; Peripheral membrane protein. Note=During interphase, localized in vesicles continuously moving from peripheral sorting endosomes in the cell towards the pericentrosomal endosomal recycling compartment (ERC) (PubMed:17394487, PubMed:20026645). In early mitosis remains diffuse and distributed through the cell. The onset of anaphase sequesters these vesicles to the centrosomes at the opposite poles of the cell During telophase these vesicles move from the centrosomes, to the furrow, and then to the midbody

to aid in abscission (PubMed:15158446, PubMed:15601896, PubMed:18511905). Interaction with Rab11 mediates localization to endosomes (PubMed:11495908). Interaction with ARF6 mediates localization to the midbody (PubMed:16148947). Localized to the Golgi and TGN when interacting with RHO in photoreceptors (PubMed:25673879). Localized to rhodopsin transport carriers when interacting with RAB11A and ASAP1 in photoreceptors (PubMed:25673879)

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