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RAB11A Antibody

Rabbit mAb
Catalog # AP90341

Product Information

Application	WB, IP
Primary Accession	P62491
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	MGC1490; Rab 11; Rab 11A; Rab-11; RAB11 A; RAB11; Rab11a; RAB11A member RAS oncogene family; Ras related protein Rab 11A; Ras related protein Rab11A; Ras-related protein Rab-11A; RB11A; YL 8; YL8;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	24394

Additional Information

Dilution	WB 1:1000~1:2000 IP 1:30
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human RAB11A
Description	Rab11a, Rab11b and Rab25 are members of the Rab11 family of small Ras-like GTPases. Rab11 (isoforms Rab11a and Rab11b) functions as a key regulator in the recycling of perinuclear, plasma membrane and Golgi compartment endosomes. Despite some overlap, distinct differences exist between Rab11a and Rab11b in both their cellular distribution and functional roles. Rab11a is ubiquitously expressed while Rab11b is found mainly in the heart and brain. Like other Rab proteins, Rab11 exerts its function via interactions with Rab11 family interacting proteins (FIPs).
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

Name	RAB11A (HGNC:9760)
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:15601896, PubMed:15689490, PubMed:17462998, PubMed:19542231, PubMed:20026645, PubMed:20890297, PubMed:21282656, PubMed:26032412). RAB11A regulates endocytic recycling (PubMed:20026645). Forms a functional

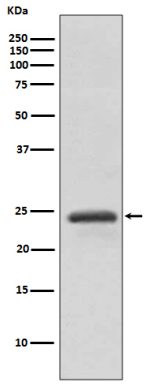
Rab11/RAB11FIP3/dynein complex that regulates the movement of peripheral sorting endosomes (SE) along microtubule tracks toward the microtubule organizing center/centrosome, generating the endosomal recycling compartment (ERC) (PubMed:20026645). Acts as a major regulator of membrane delivery during cytokinesis (PubMed:15601896). Together with MYO5B and RAB8A participates in epithelial cell polarization (PubMed:21282656). Together with Rabin8/RAB3IP, RAB8A, the exocyst complex, PARD3, PRKCI, ANXA2, CDC42 and DNMBP promotes transcytosis of PODXL to the apical membrane initiation sites (AMIS), apical surface formation and lumenogenesis (PubMed:20890297). Together with MYO5B participates in CFTR trafficking to the plasma membrane and TF (Transferrin) recycling in nonpolarized cells (PubMed:17462998). Required in a complex with MYO5B and RAB11FIP2 for the transport of NPC1L1 to the plasma membrane (PubMed:19542231). Participates in the sorting and basolateral transport of CDH1 from the Golgi apparatus to the plasma membrane (PubMed:15689490). Regulates the recycling of FCGRT (receptor of Fc region of monomeric IgG) to basolateral membranes (By similarity). May also play a role in melanosome transport and release from melanocytes (By similarity). 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, PubMed:31204173). On the contrary, upon LPAR1 receptor signaling pathway activation, interaction with phosphorylated WDR44 prevents Rab11-RAB3IP-RAB11FIP3 complex formation and cilia growth (PubMed:31204173). Participates in the export of a subset of neosynthesized proteins through a Rab8-Rab10-Rab11-endososomal dependent export route via interaction with WDR44 (PubMed:32344433). Also interacts with RABL3 to promote ciliary vesicle formation (PubMed:36052645).

Cellular Location

Cell membrane; Lipid-anchor. Endosome membrane; Lipid-anchor. Recycling endosome membrane; Lipid-anchor. Cleavage furrow. Cytoplasmic vesicle, phagosome membrane; Lipid-anchor. Golgi apparatus membrane; Lipid-anchor. Golgi apparatus, trans-Golgi network. Cytoplasmic vesicle membrane; Lipid- anchor. Cell projection, cilium. Note=Localized to WDR44-positive endosomes and tubules (PubMed:32344433). Translocates with RAB11FIP2 from the vesicles of the endocytic recycling compartment (ERC) to the plasma membrane (PubMed:11994279). During interphase, localized in vesicles continuously moving from peripheral sorting endosomes towards the pericentrosomal ERC (PubMed:20026645). Localizes to the cleavage furrow (PubMed:15601896). Colocalizes with PARD3, PRKCI, EXOC5, OCLN, PODXL and RAB8A in apical membrane initiation sites (AMIS) during the generation of apical surface and lumenogenesis (PubMed:20890297) Recruited to phagosomes containing S.aureus or M.tuberculosis (PubMed:21255211). Localized to rhodopsin transport carriers when interacting with RAB11AFIP3 and ASAP1 in photoreceptors (PubMed:25673879). Colocalizes with RAB11AFIP1 on punctate vesicles (PubMed:26032412).

Images

Western blot analysis of RAB11A expression in HeLa cell lysate.



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