

Rab8A Rabbit mAb

Catalog # AP74831

Product Information

Application WB, IHC-P, IHC-F, ICC

Primary Accession P61006

Reactivity Human, Mouse, Rat

Host Rabbi

Clonality Monoclonal Antibody

Calculated MW 23668

Additional Information

Gene ID 4218

Other Names RAB8A

Dilution WB~~1/500-1/1000 IHC-P~~N/A IHC-F~~N/A ICC~~N/A

Format Liquid

Protein Information

Name RAB8A (HGNC:7007)

Synonyms MEL, RAB8

Function The small GTPases Rab are key regulators of intracellular membrane

membranes. Rabs cycle between an inactive GDP-bound form and an active GTP-bound form that is able to recruit to membranes different sets of downstream effectors directly responsible for vesicle formation, movement, tethering and fusion. RAB8A is involved in polarized vesicular trafficking and neurotransmitter release. Together with RAB11A, RAB3IP, the exocyst complex, PARD3, PRKCI, ANXA2, CDC42 and DNMBP promotes transcytosis of

trafficking, from the formation of transport vesicles to their fusion with

PODXL to the apical membrane initiation sites (AMIS), apical surface formation and lumenogenesis (PubMed:<u>20890297</u>). Regulates the compacted morphology of the Golgi (PubMed:<u>26209634</u>). Together with MYO5B and RAB11A participates in epithelial cell polarization (PubMed:<u>21282656</u>). Also

involved in membrane trafficking to the cilium and ciliogenesis

(PubMed:<u>21844891</u>, PubMed:<u>30398148</u>, PubMed:<u>20631154</u>). Together with MICALL2, may also regulate adherens junction assembly (By similarity). May play a role in insulin-induced transport to the plasma membrane of the glucose transporter GLUT4 and therefore play a role in glucose homeostasis (By similarity). Involved in autophagy (PubMed:<u>27103069</u>). Participates in the export of a subset of neosynthesized proteins through a Rab8-Rab10-

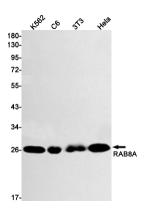
Rab11-dependent endososomal export route (PubMed:<u>32344433</u>). Targeted

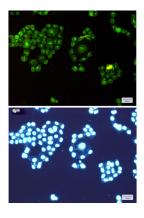
to and stabilized on stressed lysosomes through LRRK2 phosphorylation (PubMed: 30209220). Suppresses stress-induced lysosomal enlargement through EHBP1 and EHNP1L1 effector proteins (PubMed: 30209220).

Cellular Location

Cell membrane; Lipid-anchor; Cytoplasmic side. Golgi apparatus. Endosome membrane. Recycling endosome membrane. Cell projection, cilium. Cytoplasmic vesicle, phagosome. Cytoplasmic vesicle, phagosome membrane {ECO:0000250|UniProtKB:Q92930}; Lipid-anchor {ECO:0000250 | UniProtKB:Q92930}; Cytoplasmic side {ECO:0000250|UniProtKB:Q92930}. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome, centriole {ECO:0000250 | UniProtKB:P55258}. Cytoplasm, cytoskeleton, cilium basal body. Midbody. Cytoplasm, cytoskeleton, cilium axoneme. Cytoplasm Lysosome. Note=Colocalizes with OPTN at the Golgi complex and in vesicular structures close to the plasma membrane (PubMed:15837803). In the GDP-bound form, present in the perinuclear region (PubMed:12221131). Shows a polarized distribution to distal regions of cell protrusions in the GTP-bound form (PubMed:12221131). Colocalizes with PARD3, PRKCI, EXOC5, OCLN, PODXL and RAB11A in apical membrane initiation sites (AMIS) during the generation of apical surface and lumenogenesis (PubMed:20890297) Localizes to tubular recycling endosome (PubMed:19864458). Recruited to phagosomes containing S.aureus or M.tuberculosis (PubMed:21255211) Non-phosphorylated RAB8A predominantly localized to the cytoplasm whereas phosphorylated RAB8A localized to the membrane (PubMed:26824392, PubMed:29125462, PubMed:30398148). Colocalized with MICAL1, GRAF1/ARHGAP26 and GRAF2/ARHGAP10 on endosomal tubules (PubMed:32344433). Localizes to enlarged lysosomes through LRRK2 phosphorylation (PubMed:30209220). Colocalizes with RPGR at the primary cilia of epithelial cells (By similarity) {ECO:0000250|UniProtKB:P61007, ECO:0000269|PubMed:12221131, ECO:0000269 | PubMed:15837803, ECO:0000269 | PubMed:19864458, ECO:0000269 | PubMed:20890297, ECO:0000269 | PubMed:21255211, ECO:0000269 | PubMed:26824392, ECO:0000269 | PubMed:29125462, ECO:0000269 | PubMed:30209220, ECO:0000269 | PubMed:30398148, ECO:0000269 | PubMed:32344433}

Images







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