

Rab8 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO2110a**Specification****Rab8 Antibody - Product Information**

Application	WB, FC, E
Primary Accession	P61006
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2b
Calculated MW	23.7kDa KDa

Description

The protein encoded by this gene is a member of the RAS superfamily which are small GTP/GDP-binding proteins with an average size of 200 amino acids. The RAS-related proteins of the RAB/YPT family may play a role in the transport of proteins from the endoplasmic reticulum to the Golgi and the plasma membrane. This protein shares 97%, 96%, and 51% similarity with the dog RAB8, mouse MEL, and mouse YPT1 proteins, respectively and contains the 4 GTP/GDP-binding sites that are present in all the RAS proteins. The putative effector-binding site of this protein is similar to that of the RAB/YPT proteins. However, this protein contains a C-terminal CAAX motif that is characteristic of many RAS superfamily members but which is not found in YPT1 and the majority of RAB proteins. Although this gene was isolated as a transforming gene from a melanoma cell line, no linkage between MEL and malignant melanoma has been demonstrable. This oncogene is located 800 kb distal to MY09B on chromosome 19p13.1.

Immunogen

Purified recombinant fragment of human Rab8 (AA: 68-207) expressed in E. Coli.

Formulation

Purified antibody in PBS with 0.05% sodium azide

Rab8 Antibody - Additional Information

Gene ID 4218

Other Names

Ras-related protein Rab-8A, Oncogene c-mel, RAB8A, MEL, RAB8

Dilution

WB~~1/500 - 1/2000

FC~~1/200 - 1/400

E~~1/10000

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

Rab8 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Rab8 Antibody - Protein Information

Name RAB8A ([HGNC:7007](#))

Synonyms MEL, RAB8

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 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 PODXL to the apical membrane initiation sites (AMIS), apical surface formation and lumenogenesis (PubMed: [20890297](http://www.uniprot.org/citations/20890297)). Regulates the compacted morphology of the Golgi (PubMed: [26209634](http://www.uniprot.org/citations/26209634)). Together with MYO5B and RAB11A participates in epithelial cell polarization (PubMed: [21282656](http://www.uniprot.org/citations/21282656)). Also involved in membrane trafficking to the cilium and ciliogenesis (PubMed: [21844891](http://www.uniprot.org/citations/21844891), PubMed: [30398148](http://www.uniprot.org/citations/30398148), PubMed: [20631154](http://www.uniprot.org/citations/20631154)). 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: [27103069](http://www.uniprot.org/citations/27103069)). Participates in the export of a subset of neosynthesized proteins through a Rab8-Rab10- Rab11-dependent endosomal export route (PubMed: [32344433](http://www.uniprot.org/citations/32344433)). Targeted to and stabilized on stressed lysosomes through LRRK2 phosphorylation (PubMed: [30209220](http://www.uniprot.org/citations/30209220)). Suppresses stress-induced lysosomal enlargement through EHBP1 and EHNP1L1 effector proteins (PubMed: [30209220](http://www.uniprot.org/citations/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 MICALL1, 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}

Rab8 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 Cytometry](#)
- [Cell Culture](#)