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RAB8A antibody - middle region
Rabbit Polyclonal Antibody
Catalog # AI16215

Specification

RAB8A antibody - middle region - Product Information

Application	**WB**
Primary Accession	P61006
Other Accession	NM_005370, NP_005361
Reactivity	**Human, Mouse, Rat, Pig, Sheep, Bovine, Dog**
Predicted	**Human, Mouse, Rat, Pig, Chicken, Sheep, Bovine, Dog**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**24kDa KDa**

RAB8A antibody - middle region - Additional Information

Gene ID 4218

Alias Symbol	**MEL, RAB8**

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

Format
Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.

Reconstitution & Storage
Add 50 ul of distilled water. Final anti-RAB8A antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.

Precautions
RAB8A antibody - middle region is for research use only and not for use in diagnostic or therapeutic procedures.

RAB8A antibody - middle region - Protein Information

Name RAB8A

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. That Rab 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). Regulates the compacted morphology of the Golgi (PubMed:26209634). Together with MYO5B and RAB11A participates in epithelial cell polarization (PubMed:21282656). Also involved in membrane trafficking to the cilium and ciliogenesis (PubMed:21844891, PubMed:30398148). 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). Participates in the export of a subset of neosynthesized proteins through a Rab8-Rab10-Rab11-dependent endososomal export route (PubMed:32344433). 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).

RAB8A antibody - middle region - 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

RAB8A antibody - middle region - Images

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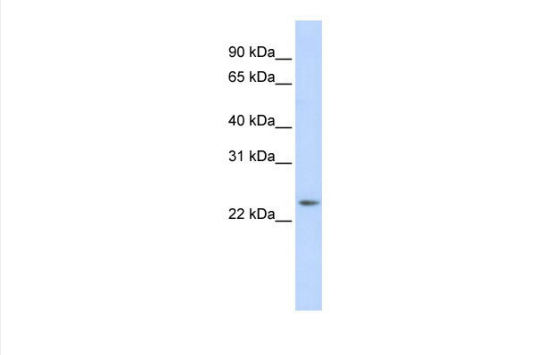

WB Suggested Anti-RAB8A Antibody Titration: 0.2-1 µg/ml
ELISA Titer: 1:62500
Positive Control: 721_B cell lysate

RAB8A is supported by BioGPS gene expression data to be expressed in 721_B

RAB8A antibody - middle region - Background

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. That Rab 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. Together with MYO5B and RAB11A participates in epithelial cell polarization. Plays an important role in ciliogenesis. Together with MICALL2, may also regulate adherens junction assembly. 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.

RAB8A antibody - middle region - References

Zahraoui A.,et al.J. Cell Biol. 124:101-115(1994).
Nimmo E.R.,et al.Oncogene 6:1347-1351(1991).
Puhl H.L. III,et al.Submitted (APR-2002) to the EMBL/GenBank/DDBJ databases.
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Ota T.,et al.Nat. Genet. 36:40-45(2004).