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Goat Anti-RAB8A Antibody

Peptide-affinity purified goat antibody
Catalog # AF1895a

Specification

Goat Anti-RAB8A Antibody - Product Information

Application	**WB**
Primary Accession	P61006
Other Accession	NP_005361, 4218
Reactivity	**Human**
Predicted	**Dog, Cow**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**23668**

Goat Anti-RAB8A Antibody - Additional Information

Gene ID 4218

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

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

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
Goat Anti-RAB8A Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-RAB8A Antibody - 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).

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 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)

Goat Anti-RAB8A 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 Cytomety
- Cell Culture

Goat Anti-RAB8A Antibody - Images

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AF1895a (0.1 µg/ml) staining of Human Brain (Cerebellum) lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-RAB8A Antibody - Background

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.

Goat Anti-RAB8A Antibody - References

Rab8 interacts with distinct motifs in alpha2B- and beta2-adrenergic receptors and differentially modulates their transport. Dong C, et al. J Biol Chem, 2010 Jun 25. PMID 20424170.
Coordination of Rab8 and Rab11 in primary ciliogenesis. Kn□dler A, et al. Proc Natl Acad Sci U S A, 2010 Apr 6. PMID 20308558.
New genetic associations detected in a host response study to hepatitis B vaccine. Davila S, et al. Genes Immun, 2010 Apr. PMID 20237496.
Myosin Vc, a member of the actin motor family associated with Rab8, is involved in the release of DV2 from HepG2 cells. Xu XF, et al. Intervirology, 2009. PMID 19641326.
Rab8 regulates ABCA1 cell surface expression and facilitates cholesterol efflux in primary human macrophages. Linder MD, et al. Arterioscler Thromb Vasc Biol, 2009 Jun. PMID 19304576.