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Rab2 Antibody

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AP52713

Product Information

Primary Accession	P61019
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	23546

Additional Information

Gene ID	5862
Other Names	9330148M11Rik;C80220;GTP binding protein;LHX;OTTMUSP00000004796;RAB2;RAB2 member RAS oncogene family;RAB2A;RAB2A, member RAS oncogene family;RAB2A_HUMAN;Ras related protein Rab 2A;RAS-associated protein RAB2;Ras-related protein Rab-2A;RP23-183L6.1;Small GTP binding protein RAB2A.
Format	Ascites
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Protein Information

Name	RAB2A (HGNC:9763)
Synonyms	RAB2
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 active GTP-bound and inactive GDP-bound states. In their active state, drive transport of vesicular carriers from donor organelles to acceptor organelles to regulate the membrane traffic that maintains organelle identity and morphology (PubMed:37821429). RAB2A regulates autophagy by promoting autophagosome-lysosome fusion via recruitment of the HOPS endosomal tethering complex; this process involves autophagosomal RAB2A and lysosomal RAB39A recruitment of HOPS subcomplexes VPS39-VPS11 and VPS41-VPS16-VPS18-VPS33A, respectively, which assemble into a functional complex to mediate membrane tethering and SNAREs-driven membrane fusion (PubMed:37821429). Required for protein transport from the endoplasmic reticulum to the Golgi complex. Regulates the compacted morphology of the Golgi (PubMed:26209634). Together with RAB2B, redundantly required for efficient autophagic flux

(PubMed:28483915).

Cellular Location

Endoplasmic reticulum-Golgi intermediate compartment membrane; Lipid-anchor; Cytoplasmic side Melanosome. Endoplasmic reticulum membrane; Lipid-anchor; Cytoplasmic side. Golgi apparatus membrane; Lipid-anchor; Cytoplasmic side. Cytoplasmic vesicle, secretory vesicle, acrosome {ECO:0000250|UniProtKB:P53994}. Cytoplasmic vesicle, autophagosome membrane {ECO:0000250|UniProtKB:P53994}; Lipid-anchor; Cytoplasmic side Note=Localized in the Golgi apparatus in the round spermatids and in the acrosome in the elongating spermatid (By similarity). Identified by mass spectrometry in melanosome fractions from stage I to stage IV (PubMed:17081065). {ECO:0000250|UniProtKB:P53994, ECO:0000269|PubMed:17081065}

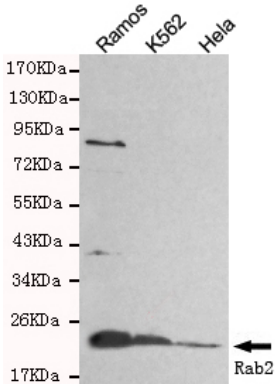
Background

Required for protein transport from the endoplasmic reticulum to the Golgi complex.

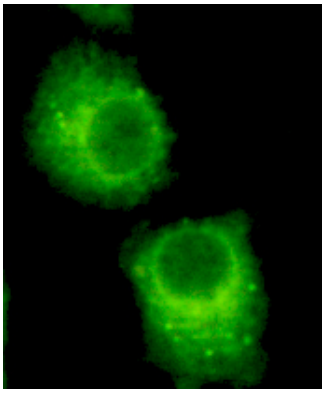
References

Tachibana K.,et al.Nucleic Acids Res. 16:10368-10368(1988).
Zahraoui A.,et al.J. Biol. Chem. 264:12394-12401(1989).
Puhl H.L. III,et al.Submitted (APR-2002) to the EMBL/GenBank/DDBJ databases.
Kalnine N.,et al.Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases.
Ota T.,et al.Nat. Genet. 36:40-45(2004).

Images



Western blot detection of Rab2 in Hela,Ramos and K562 cell lysates and using Rab2 mouse mAb (1:800 diluted).Predicted band size: 24KDa.Observed band size: 24KDa.



Immunocytochemistry of HeLa cells using anti-Rab2 mouse mAb diluted 1:200

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