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Anti-Rab9 Antibody
Catalog # ABO11590

Specification

Anti-Rab9 Antibody - Product Information

Application	**WB**
Primary Accession	P51151
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Ras-related protein Rab-9A(RAB9A) detection. Tested with WB in Human;Mouse;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Rab9 Antibody - Additional Information

Gene ID 9367

Other Names
Ras-related protein Rab-9A, RAB9A, RAB9

Calculated MW
22838 MW KDa

Application Details
Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization
Cell membrane ; Lipid-anchor ; Cytoplasmic side . Endoplasmic reticulum membrane . Golgi apparatus membrane . Late endosome. Cytoplasmic vesicle, phagosome membrane ; Lipid-anchor ; Cytoplasmic side . Cytoplasmic vesicle, phagosome. Colocalizes with OSBPL1A at the late endosome. Recruited to phagosomes containing S.aureus or M.tuberculosis.

Protein Name
Ras-related protein Rab-9A

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence at the C-terminus of human Rab9(178-193aa RSDHLIQTDTVNLHRK), identical to the related rat sequence, and different from the related mouse sequence by one amino acid.

Purification

Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage

At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Anti-Rab9 Antibody - Protein Information

Name RAB9A (HGNC:9792)

Synonyms RAB9

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 (By similarity). RAB9A is involved in the transport of proteins between the endosomes and the trans-Golgi network (TGN) (PubMed:34793709). Specifically uses NDE1/NDEL1 as an effector to interact with the dynein motor complex in order to control retrograde trafficking of RAB9-associated late endosomes to the TGN (PubMed:34793709). Involved in the recruitment of SGSM2 to melanosomes and is required for the proper trafficking of melanogenic enzymes TYR, TYRP1 and DCT/TYRP2 to melanosomes in melanocytes (By similarity).

Cellular Location
Cell membrane; Lipid-anchor; Cytoplasmic side. Endoplasmic reticulum membrane. Golgi apparatus membrane. Late endosome. Cytoplasmic vesicle, phagosome membrane; Lipid-anchor; Cytoplasmic side. Cytoplasmic vesicle, phagosome. Cytoplasmic vesicle membrane. Melanosome {ECO:0000250|UniProtKB:Q9R0M6}. Note=Colocalizes with OSBPL1A at the late endosome (PubMed:16176980). Recruited to phagosomes containing S.aureus or M.tuberculosis (PubMed:21255211). Mainly localizes to late endosomes and partially localizes to Golgi (PubMed:34793709) Colocalizes with NDE1 to membrane vesicles (PubMed:34793709)

Anti-Rab9 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

Anti-Rab9 Antibody - Images

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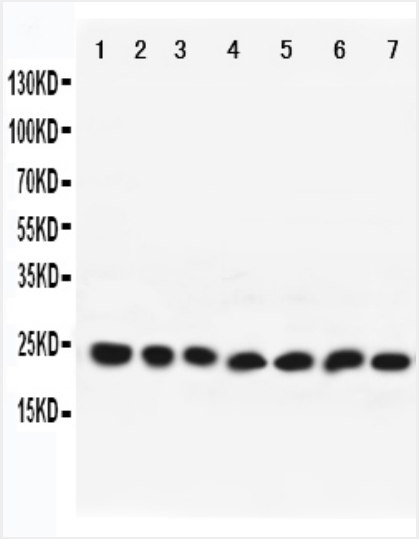

Anti-Rab9 antibody, ABO11590, All Western blottingAll lanes: Anti-RAB9A(ABO11590) at 0.5ug/mlLane 1: Rat Brain Tissue Lysate at 40ugLane 2: Mouse Brain Tissue Lysate at 40ugLane 3: HELA Whole Cell Lysate at 40ugLane 4: PC12 Whole Cell Lysate at 40ugLane 5: NIH Whole Cell Lysate at 40ugLane 6: A431 Whole Cell Lysate at 40ugLane 7: 293T Whole Cell Lysate at 40ugPredicted bind size: 23KDObserved bind size: 23KD

Anti-Rab9 Antibody - Background

Ras-related protein Rab-9A, also called RAB9, is a protein that in humans is encoded by the RAB9A gene. This gene is mapped to Xp22.2. RAB9 has been localized to components of the endocytic/exocytic pathway and has been implicated in recycling of membrane receptors. It has been found that downregulation of RAB9A gene expression in HeLa cells induced severe cell vacuolation. RAB9A GTPase is directly bound by TIP47 in its active, GTP-bound conformation. Moreover, RAB9A increases the affinity of TIP47 for its cargo. What's more, this gene may involved in the transport of proteins between the endosomes and the trans Golgi network. RAB9A has been shown to interact with RABEPK and TIP47.