

# Rab 9A (C-18): sc-6562

## BACKGROUND

The Ras-related superfamily of guanine nucleotide binding proteins includes the R-Ras, Rap, Ral/Rec and Rho/Rab subfamilies, all of which are thought to play an important role in either endocytosis or in biosynthetic protein transport. The process of transporting newly synthesized proteins from the endoplasmic reticulum (ER) to various stacks of the Golgi complex, and to secretory vesicles, involves the movement of carrier vesicles and requires Rab protein function. Rab proteins are also an integral part of endocytic pathways. Rab 9A is a 201 amino acid protein that localizes to the cytoplasmic side of the cell membrane, as well as to the membrane of the Golgi apparatus and the ER, and is involved in the transport of proteins between endosomes and the *trans*-Golgi network.

## REFERENCES

- Davies, J.P., et al. 1997. Cloning and mapping of human Rab 7 and Rab 9 cDNA sequences and identification of a Rab 9 pseudogene. *Genomics* 41: 131-134.
- Díaz, E., et al. 1997. A novel Rab 9 effector required for endosome-to-TGN transport. *J. Cell Biol.* 138: 283-290.
- de Leeuw, H.P., et al. 1998. Small GTP-binding proteins in human endothelial cells. *Br. J. Haematol.* 103: 15-19.
- Seki, N., et al. 2000. cDNA cloning of a new member of the Ras superfamily, Rab 9-like, on the human chromosome Xq22.1-q22.3 region. *J. Hum. Genet.* 45: 318-322.
- Carroll, K.S., et al. 2001. Role of Rab 9 GTPase in facilitating receptor recruitment by TIP47. *Science* 292: 1373-1376.
- Barbero, P., et al. 2002. Visualization of Rab 9-mediated vesicle transport from endosomes to the *trans*-Golgi in living cells. *J. Cell Biol.* 156: 511-518.
- Walter, M., et al. 2003. Telomerase immortalization upregulates Rab 9 expression and restores LDL cholesterol egress from Niemann-Pick C1 late endosomes. *J. Lipid Res.* 44: 243-253.

## CHROMOSOMAL LOCATION

Genetic locus: RAB9A (human) mapping to Xp22.2; Rab9a (mouse) mapping to X F5.

## SOURCE

Rab 9A (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Rab 9A of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-6562 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## APPLICATIONS

Rab 9A (C-18) is recommended for detection of Rab 9A of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

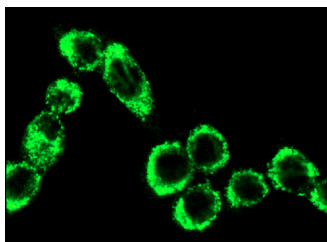
Rab 9A (C-18) is also recommended for detection of Rab 9A in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Rab 9A siRNA (h): sc-41830, Rab 9A siRNA (m): sc-41831, Rab 9A shRNA Plasmid (h): sc-41830-SH, Rab 9A shRNA Plasmid (m): sc-41831-SH, Rab 9A shRNA (h) Lentiviral Particles: sc-41830-V and Rab 9A shRNA (m) Lentiviral Particles: sc-41831-V.

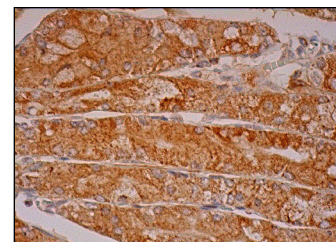
Molecular Weight of Rab 9A: 23 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, HeLa whole cell lysate: sc-2200 or K-562 whole cell lysate: sc-2203.

## DATA



Rab 9A (C-18): sc-6562. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization.



Rab 9A (C-18): sc-6562. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lower stomach tissue showing cytoplasmic staining of glandular cells.

## SELECT PRODUCT CITATIONS

- Zhang, M., et al. 2001. Sterol-modulated glycolipid sorting occurs in Niemann-Pick C1 late endosomes. *J. Biol. Chem.* 276: 3417-3425.
- Gastpar, R., et al. 2005. Heat shock protein 70 surface-positive tumor exosomes stimulate migratory and cytolytic activity of natural killer cells. *Cancer Res.* 65: 5238-5247.
- Gardner, L.A., et al. 2011. Rab11a and its binding partners regulate the recycling of the  $\beta$ 1-adrenergic receptor. *Cell. Signal.* 23: 46-57.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.


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Satisfaction  
Guaranteed

Try **Rab 9A (Mab9): sc-53145** or **Rab 9 (G-5): sc-74482**, our highly recommended monoclonal alternatives to Rab 9A (C-18).