

Rab 7 (C-19): sc-6563

BACKGROUND

The Ras-related superfamily of guanine nucleotide binding proteins, which includes the Ral/Rec, Rap, R-Ras, and Rho/Rab subfamilies, exhibit 30-60% homology with Ras p21. Accumulating data suggests an important role for Rab proteins, either in endocytosis or in biosynthetic protein transport. The transport of newly synthesized proteins from the endoplasmic reticulum to various stacks of the Golgi complex and to secretory vesicles involves at each stage the movement of carrier vesicles, a process that appears to involve Rab protein function. The possibility that Rab proteins might also direct the exocytosis from secretory vesicles to the plasma membrane is supported by the observation that in yeast, the Sec4 protein, which is 40% homologous to Rab proteins, is associated with secretory vesicles. Several members of the Rab subfamily have been identified, each of which is found at a particular stage of a membrane transport pathway.

CHROMOSOMAL LOCATION

Genetic locus: RAB7A (human) mapping to 3q21.3; Rab7 (mouse) mapping to 6 D1.

SOURCE

Rab 7 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Rab 7 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-6563 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Rab 7 (C-19) is recommended for detection of Rab 7 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (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 7 (C-19) is also recommended for detection of Rab 7 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for Rab 7 siRNA (h): sc-29460, Rab 7 siRNA (m2): sc-270071, Rab 7 shRNA Plasmid (h): sc-29460-SH, Rab 7 shRNA Plasmid (m2): sc-270071-SH, Rab 7 shRNA (h) Lentiviral Particles: sc-29460-V and Rab 7 shRNA (m2) Lentiviral Particles: sc-270071-V.

Molecular Weight of Rab 7: 22 kDa.

Positive Controls: Rab 7 (m): 293T Lysate: sc-122913, A-431 whole cell lysate: sc-2201 or NIH/3T3 whole cell lysate: sc-2210.

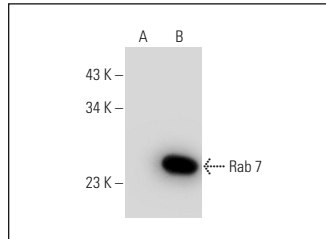
STORAGE

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

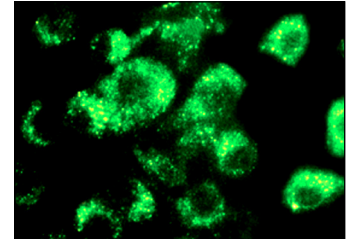
RESEARCH USE

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

DATA



Rab 7 (C-19): sc-6563. Western blot analysis of Rab 7 expression in non-transfected: sc-117752 (A) and mouse Rab 7 transfected: sc-122913 (B) 293T whole cell lysates.



Rab 7 (C-19): sc-6563. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Athanassakis, I., et al. 2000. Localization of Pepstatin's inhibitory action during Fc-mediated antibody internalization: possible implications for antibody-mediated viral transmission. *Cell. Immunol.* 199: 81-88.
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- Weiss, K.H., et al. 2008. Copper-induced translocation of the Wilson disease protein ATP7B independent of Murr1/COMMD1 and Rab 7. *Am. J. Pathol.* 173: 1783-1794.
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- Cao, Y., et al. 2011. Distinct early molecular responses to mutations causing vLINCL and JNCL presage ATP synthase subunit C accumulation in cerebellar cells. *PLoS ONE* 6: e17118.
- Stone, K.P., et al. 2011. Rapid endocytosis of interleukin-15 by cerebral endothelia. *J. Neurochem.* 116: 544-553.
- Witwicka, H., et al. 2015. TRAFD1 (FLN29) interacts with Plekhm1 and regulates osteoclast acidification and resorption. *PLoS ONE* 10: e0127537.


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Try **Rab 7 (B-3): sc-376362** or **Rab 7 (D-4): sc-271608**, our highly recommended monoclonal alternatives to Rab 7 (C-19). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Rab 7 (B-3): sc-376362**.