

Rab 11B (K-13): sc-26591

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.

REFERENCES

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2. Chavrier, P., et al. 1992. The complexity of the Rab and Rho GTP-binding protein subfamilies revealed by a PCR cloning approach. *Gene* 112: 261-264.
3. Baldini, G., et al. 1992. Cloning of a Rab3 isotype predominately expressed in adipocytes. *Proc. Natl. Acad. Sci. USA* 89: 5049-5052.
4. Novick, P. and Brennwald, P. 1993. Friends and family: the role of the Rab GTPases in vesicular traffic. *Cell* 75: 597-601.
5. Chen, Y., et al. 1993. Expression and localization of two low molecular weight GTP-binding proteins, Rab8 and Rab10, by epitope tag. *Proc. Natl. Acad. Sci. USA* 90: 6508-6512.
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7. Feng, Y., et al. 1995. Rab 7: an important regulator of late endocytic membrane traffic. *J. Cell Biol.* 131: 1435-1452.
8. Soldati, T., et al. 1995. Rab7 and Rab9 are recruited onto late endosomes by biochemically distinguishable processes. *J. Biol. Chem.* 270: 25541-25548.

CHROMOSOMAL LOCATIONS

Genetic locus: RAB11B (human) mapping to 19p13.2; Rab11b (mouse) mapping to 17 B1.

SOURCE

Rab 11B (K-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Rab 11B of human origin.

STORAGE

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

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-26591 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Rab 11B (K-13) is recommended for detection of Rab 11B 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Rab 11B (K-13) is also recommended for detection of Rab 11B in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for Rab 11B siRNA (h): sc-106470, Rab 11B siRNA (m): sc-152625, Rab 11B shRNA Plasmid (h): sc-106470-SH, Rab 11B shRNA Plasmid (m): sc-152625-SH, Rab 11B shRNA (h) Lentiviral Particles: sc-106470-V and Rab 11B shRNA (m) Lentiviral Particles: sc-152625-V.

Molecular Weight of Rab 11B: 25 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Halaas, O., et al. 2010. Intracellular Mycobacterium avium intersect transferrin in the Rab11+ recycling endocytic pathway and avoid lipocalin 2 trafficking to the lysosomal pathway. *J. Infect. Dis.* 201: 783-792.
2. Zemskov, E.A., et al. 2011. Unconventional secretion of tissue transglutaminase involves phospholipid-dependent delivery into recycling endosomes. *PLoS ONE* 6: e19414.
3. Gardner, L.A., et al. 2011. Rab11a and its binding partners regulate the recycling of the β_1 -adrenergic receptor. *Cell. Signal.* 23: 46-57.

RESEARCH USE

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