

Rab 11A (K-15): sc-26590

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

1. Zahraoui, A., et al. 1989. The human Rab genes encode a family of GTP-binding proteins related to yeast Ypt1 and Sec4 products involved in secretion. *J. Biol. Chem.* 264: 12394-12401.
2. Baldini, G., et al. 1992. Cloning of a Rab 3 isotype predominately expressed in adipocytes. *Proc. Natl. Acad. Sci. USA* 89: 5049-5052.
3. 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.
4. Chen, Y., et al. 1993. Expression and localization of two low molecular weight GTP-binding proteins, Rab 8 and Rab 10, by epitope tag. *Proc. Natl. Acad. Sci. USA* 90: 6508-6512.
5. Karniguian, A., et al. 1993. Identification of small GTP-binding Rab proteins in human platelets: Thrombin-induced phosphorylation of Rab 3B, Rab 6 and Rab 8 proteins. *Proc. Natl. Acad. Sci. USA* 90: 7647-7651.
6. Novick, P. and Brennwald, P. 1993. Friends and family: the role of the Rab GTPases in vesicular traffic. *Cell* 75: 597-601.

CHROMOSOMAL LOCATION

Genetic locus: RAB11A (human) mapping to 15q22.31; Rab11a (mouse) mapping to 9 C.

SOURCE

Rab 11A (K-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Rab 11A 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-26590 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 11A (K-15) is recommended for detection of Rab 11A 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).

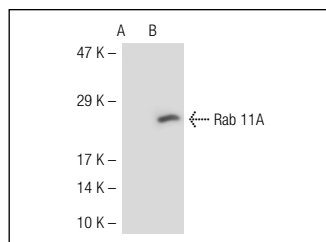
Rab 11A (K-15) is also recommended for detection of Rab 11A in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Rab 11A siRNA (h): sc-36340, Rab 11A siRNA (m): sc-36341, Rab 11A shRNA Plasmid (h): sc-36340-SH, Rab 11A shRNA Plasmid (m): sc-36341-SH, Rab 11A shRNA (h) Lentiviral Particles: sc-36340-V and Rab 11A shRNA (m) Lentiviral Particles: sc-36341-V.

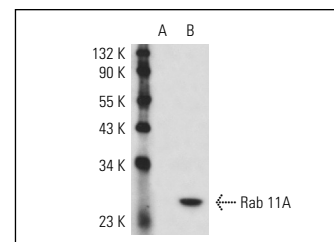
Molecular Weight of Rab 11A: 25 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or Rab 11A (m): 293T Lysate: sc-122877.

DATA



Rab 11A (K-15): sc-26590. Western blot analysis of Rab 11A expression in non-transfected: sc-117752 (A) and mouse Rab 11A transfected: sc-122877 (B) 293T whole cell lysates.



Rab 11A (K-15): sc-26590. Western blot analysis of Rab 11A expression in non-transfected: sc-117750 (A) and mouse Rab 11A transfected: sc-110211 (B) CHO whole cell lysates.

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. 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.

STORAGE

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



Try **Rab 11A (D-3): sc-166523** or **Rab 11A (7C10): sc-58465**, our highly recommended monoclonal alternatives to Rab 11A (K-15). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Rab 11A (D-3): sc-166523**.