SANTA CRUZ BIOTECHNOLOGY, INC.

Rab 11B (P-22): sc-133937

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. 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 Rab 3 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, Rab 8 and Rab 10, by epitope tag. Proc. Natl. Acad. Sci. USA 90: 6508-6512.
6. 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.
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. Rab 7 and Rab 9 are recruited onto late endosomes by biochemically distinguishable processes. J. Biol. Chem. 270: 25541-25548.

CHROMOSOMAL LOCATION

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

SOURCE

Rab 11B (P-22) is an affinity purified rabbit polyclonal antibody raised against synthetic Rab 11B peptide of human origin.

PRODUCT

Each vial contains 50 µg IgG in 500 µl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

Rab 11B (P-22) 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), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

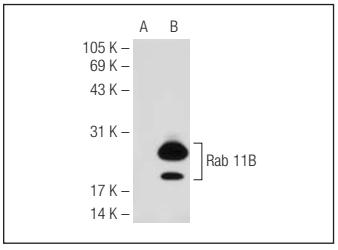
Molecular Weight of Rab 11B: 25 kDa.

Positive Controls: Rab 11B (m): 293T Lysate: sc-122878 or Jurkat whole cell lysate: sc-2204.

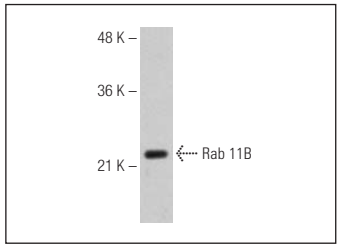
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



Rab 11B (P-22): sc-133937. Western blot analysis of Rab 11B expression in non-transfected: sc-117752 (**A**) and mouse Rab 11B transfected: sc-122878 (**B**) 293T whole cell lysates.



Rab 11B (P-22): sc-133937. Western blot analysis of Rab 11B expression in Jurkat whole cell lysate.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.