SANTA CRUZ BIOTECHNOLOGY, INC.

Rab 6 (L-16): sc-26572



BACKGROUND

The Ras-related superfamily of guanine nucleotide binding proteins, which includes the R-Ras, Rap, Ral/Rec 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. At least eight members of the Rab subfamily have been identified, each of which is found at a particular stage of a membrane transport pathway. Rab 6, also known as RAB6B, RAB6A or RAB6A, is a 208 amino acid protein that is ubiquitously expressed and is a member of the small GTPase superfamily.

REFERENCES

- Zahraoui, A., et al. 1989. The human Rab genes encode a family of GTPbinding proteins related to yeast Ypt1 and Sec4 products involved in secretion. J. Biol. Chem. 264: 12394-12401.
- 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.
- Takizawa, P., et al. 1993. Coatomers and SNAREs in promoting membrane traffic. Cell 75: 593-596.
- 5. Novick, P., et al. 1993. Friends and family: the role of the Rab GTPases in vesicular traffic. Cell 75: 597-601.
- Ferro-Novick, S., et al. 1993. The role of GTP-binding proteins in transport along the exocytic pathway. Annu. Rev. Cell Biol. 9: 575-599.
- 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.
- Torti, M., et al. 1993. Association of the low molecular weight GTP-binding protein Rap2B with the cytoskeleton during platelet aggregation. Proc. Natl. Acad. Sci USA 90: 7553-7557.

SOURCE

Rab 6 (L-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Rab 6 of human origin.

STORAGE

Store at 4° C, **D0 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.

PRODUCT

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

Blocking peptide available for competition studies, sc-26572 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Rab 6 (L-16) is recommended for detection of Rab 6A, 6B and 6C 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 6 (L-16) is also recommended for detection of Rab 6A, 6B and 6C in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of Rab 6: 25 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210.

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) Immunofluo-rescence: 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.

PROTOCOLS

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