Rab 1B (h): 293T Lysate: sc-117417



The Power to Question

BACKGROUND

The Ras-related superfamily of guanine nucleotide binding proteins, which includes the R-Ras, Rap, Ral/Rec and Rho/Rab subfamilies, exhibits 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.

REFERENCES

- Zahraoui, A., Touchot, N., Chardin, P. and Tavitian, A. 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.
- Pfeffer, S.R. 1992. GTP-binding proteins in intracellular transport. Trends Cell Biol. 2: 41-46.
- Baldini, G., Hohl, T., Lin, H.Y. and Lodish, H.F. 1992. Cloning of a Rab 3 isotype predominately expressed in adipocytes. Proc. Natl. Acad. Sci. USA 89: 5049-5052.
- Chavrier, P., Simons, K. and Zerial, M. 1992. The complexity of the Rab and Rho GTP-binding protein subfamilies revealed by a PCR cloning approach. Gene 112: 261-264.
- Takizawa, P. and Malhotra, V. 1993. Coatomers and SNAREs in promoting membrane traffic. Cell 75: 593-596.
- Novick, P. and Brennwald, P. 1993. Friends and family: the role of the Rab GTPases in vesicular traffic. Cell 75: 597-601.
- 7. Ferro-Novick, S. and Novick. P. 1993. The role of GTP-binding proteins in transport along the exocytic pathway. Annu. Rev. Cell Biol. 9: 575-599.
- 8. Chen, Y., Holcomb, C. and Moore, H.P. 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., Ramaschi, G., Sinigaglia, F., Lapetina, E.G. and Balduini, C. 1993. Association of the low molecular weight GTP-binding protein Rap 2B with the cytoskeleton during platelet aggregation. Proc. Natl. Acad. Sci. USA 90: 7553-7557.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: RAB1B (human) mapping to 11q13.2.

PRODUCT

Rab 1B (h): 293T Lysate represents a lysate of human Rab 1B transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

Rab 1B (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive Rab 1B antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

RESEARCH USE

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

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