

Rab 13 (8E8E2): sc-517224

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.

REFERENCES

- 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.
- 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.
- Pfeffer, S.R. 1992. GTP-binding proteins in intracellular transport. *Trends Cell Biol.* 2: 41-46.
- Baldini, G., et al. 1992. Cloning of a Rab3 isotype predominately expressed in adipocytes. *Proc. Natl. Acad. Sci. USA* 89: 5049-5052.
- 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.
- 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.
- 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.
- 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.

CHROMOSOMAL LOCATION

Genetic locus: RAB13 (human) mapping to 1q21.3; Rab13 (mouse) mapping to 3 F1.

SOURCE

Rab 13 (8E8E2) is a mouse monoclonal antibody raised against a recombinant protein corresponding to amino acids 66-200 of Rab 13 of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 50 µg IgG₁ in 0.5 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

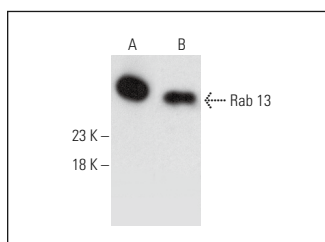
Rab 13 (8E8E2) is recommended for detection of Rab 13 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], flow cytometry (1 µg per 1 x 10⁶ cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Rab 13 siRNA (h): sc-44060, Rab 13 siRNA (m): sc-152627, Rab 13 shRNA Plasmid (h): sc-44060-SH, Rab 13 shRNA Plasmid (m): sc-152627-SH, Rab 13 shRNA (h) Lentiviral Particles: sc-44060-V and Rab 13 shRNA (m) Lentiviral Particles: sc-152627-V.

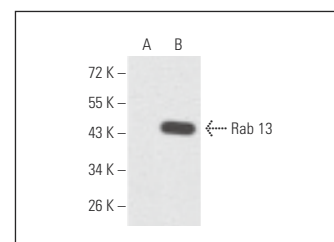
Molecular Weight of Rab 13: 25 kDa.

Positive Controls: human Rab 13 (66-200)-hlgGfc transfected HEK293 whole cell lysate, C6 whole cell lysate: sc-364373 or HeLa whole cell lysate: sc-2200.

DATA



Rab 13 (8E8E2): sc-517224. Western blot analysis of Rab 13 expression in HeLa (A) and C6 (B) whole cell lysates.



Rab 13 (8E8E2): sc-517224. Western blot analysis of Rab 13 expression in non-transfected (A) and human Rab 13 (66-200)-hlgGfc transfected (B) HEK293 whole cell lysates.

SELECT PRODUCT CITATIONS

- Lee, D., et al. 2019. No more helper adenovirus: production of gutless adenovirus (GLAd) free of adenovirus and replication-competent adenovirus (RCA) contaminants. *Exp. Mol. Med.* 51: 127.
- Giacometti, J., et al. 2020. Olive leaf polyphenols (OLPs) stimulate GLUT4 expression and translocation in the skeletal muscle of diabetic rats. *Int. J. Mol. Sci.* 21: 8981.

STORAGE

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

PROTOCOLS

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