

Rab 5C (C-13): sc-26571

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

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. 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. Torti, M., et al. 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.
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. 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: RAB5C (human) mapping to 17q21.2; Rab5c (mouse) mapping to 11 D.

SOURCE

Rab 5C (C-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Rab 5C 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-26571 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Rab 5C (C-13) is recommended for detection of Rab 5C 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

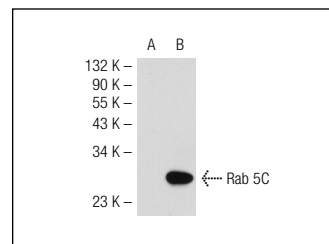
Rab 5C (C-13) is also recommended for detection of Rab 5C in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Rab 5C siRNA (h): sc-37157, Rab 5C siRNA (m): sc-37158, Rab 5C shRNA Plasmid (h): sc-37157-SH, Rab 5C shRNA Plasmid (m): sc-37158-SH, Rab 5C shRNA (h) Lentiviral Particles: sc-37157-V and Rab 5C shRNA (m) Lentiviral Particles: sc-37158-V.

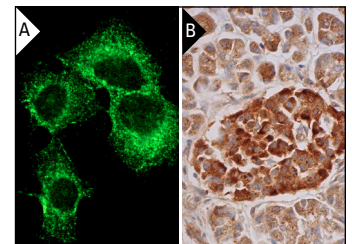
Molecular Weight of Rab 5C: 24 kDa.

Positive Controls: Rab 5C (m): 293T Lysate: sc-125879, HL-60 whole cell lysate: sc-2209 or A549 cell lysate: sc-2413.

DATA



Rab 5C (C-13): sc-26571. Western blot analysis of Rab 5C expression in non-transfected: sc-117752 (A) and mouse Rab 5C transfected 293T: sc-125879 (B) 293T whole cell lysates.



Rab 5C (C-13): sc-26571. Immunofluorescence staining of methanol-fixed A549 cells showing cytoplasmic and membrane localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of neuronal cells and glial cells (B).

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.


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Try **Rab 5C (H-3): sc-365667** or **Rab 5C (D-6): sc-374041**, our highly recommended monoclonal alternatives to Rab 5C (C-13).