

Rab 25 (S-13): sc-74890

BACKGROUND

The Ras-related superfamily of guanine nucleotide binding proteins includes the R-Ras, Rap, Ral/Rec and Rho/Rab subfamilies. Increasing data suggests an important role for Rab proteins in either endocytosis or in biosynthetic protein transport. The process of transporting newly synthesized proteins from the endoplasmic reticulum to various stacks of the Golgi complex and to secretory vesicles involves the movement of carrier vesicles and requires Rab protein function. Rab proteins are also an integral part of endocytic pathways. Rab 25, also known as CATX-8 or Rab 11C, is a member of the Rab family of proteins that is exclusively expressed in epithelial cells and participates in apical vesicle trafficking. Rab 25 is overexpressed in ovarian and breast cancer cells and has been associated with metastasis and tumor aggressiveness. The forced expression of Rab 25 in ovarian and breast cancer cells increases cell proliferation *in vivo*.

REFERENCES

1. 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.
2. Baldini, G., et al. 1992. Cloning of a Rab 3 isotype predominately expressed in adipocytes. *Proc. Natl. Acad. Sci. USA* 89: 5049-5052.
3. 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.
4. 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.
5. Novick, P. and Brennwald, P. 1993. Friends and family: the role of the Rab GTPases in vesicular traffic. *Cell* 75: 597-601.
6. Feng, Y., et al. 1995. Rab 7: an important regulator of late endocytic membrane traffic. *J. Cell Biol.* 131: 1435-1452.

CHROMOSOMAL LOCATION

Genetic locus: RAB25 (human) mapping to 1q22; Rab25 (mouse) mapping to 3 F1.

SOURCE

Rab 25 (S-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Rab 25 of human origin.

STORAGE

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

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-74890 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Rab 25 (S-13) is recommended for detection of Rab 25 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Rab 25 (S-13) is also recommended for detection of Rab 25 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for Rab 25 siRNA (h): sc-76325, Rab 25 siRNA (m): sc-76326, Rab 25 shRNA Plasmid (h): sc-76325-SH, Rab 25 shRNA Plasmid (m): sc-76326-SH, Rab 25 shRNA (h) Lentiviral Particles: sc-76325-V and Rab 25 shRNA (m) Lentiviral Particles: sc-76326-V.

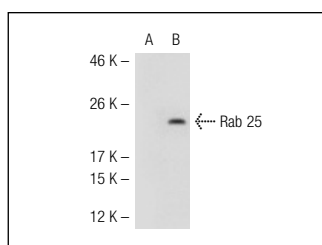
Molecular Weight of Rab 25: 24 kDa.

Positive Controls: Rab 25 (h): 293T Lysate: sc-114009.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: 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.

DATA



Rab 25 (S-13): sc-74890. Western blot analysis of Rab 25 expression in non-transfected: sc-117752 (A) and human Rab 25 transfected: sc-114009 (B) 293T whole cell lysates.

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.