

Rab 5B (A-20): sc-598

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.

CHROMOSOMAL LOCATION

Genetic locus: RAB5B (human) mapping to 12q13.2; Rab5b (mouse) mapping to 10 D3.

SOURCE

Rab 5B (A-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within the C-terminus of Rab 5B of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-598 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Rab 5B (A-20) is recommended for detection of Rab 5B 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 5B (A-20) is also recommended for detection of Rab 5B in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Rab 5B siRNA (h): sc-36346, Rab 5B siRNA (m): sc-36347, Rab 5B shRNA Plasmid (h): sc-36346-SH, Rab 5B shRNA Plasmid (m): sc-36347-SH, Rab 5B shRNA (h) Lentiviral Particles: sc-36346-V and Rab 5B shRNA (m) Lentiviral Particles: sc-36347-V.

Molecular Weight of Rab 5B: 25 kDa.

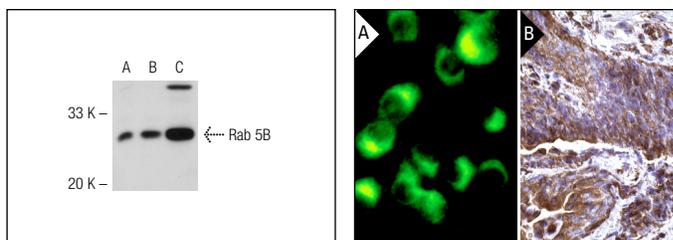
STORAGE

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.

DATA



Rab 5B (A-20): sc-598. Western blot analysis of Rab 5B expression in non-transfected 293T: sc-117752 (A), human Rab 5B transfected 293T: sc-117194 (B) and HeLa (C) whole cell lysates.

Rab 5B (A-20): sc-598. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human urinary bladder tissue showing cytoplasmic staining of urothelial cells (B).

SELECT PRODUCT CITATIONS

- Haynes, L.P., et al. 2001. A direct inhibitory role for the Rab 3-specific effector, NOC2, in Ca²⁺-regulated exocytosis in neuroendocrine cells. *J. Biol. Chem.* 276: 9726-9732.
- Howe, C.L., et al. 2001. NGF signaling from clathrin-coated vesicles: evidence that signaling endosomes serve as a platform for the Ras-MAPK pathway. *Neuron* 32: 801-814.
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- Leclerc, E.A., et al. 2011. The ubiquitous dermokine δ activates Rab5 function in the early endocytic pathway. *PLoS ONE* 6: e17816.
- Lecat, S., et al. 2011. Contribution of a tyrosine-based motif to cellular trafficking of wild-type and truncated NPY Y1 receptors. *Cell. Signal.* 23: 228-238.
- Ebrahim, R. and Thilo, L. 2011. Kinetic evidence that newly-synthesized endogenous lysosome-associated membrane protein-1 (LAMP-1) first transits early endosomes before it is delivered to lysosomes. *Mol. Membr. Biol.* 28: 227-242.
- Brejchová, J., et al. 2011. Fluorescence spectroscopy studies of HEK293 cells expressing DOR-G₁ α fusion protein; the effect of cholesterol depletion. *Biochim. Biophys. Acta* 1808: 2819-2829.
- Jank, T., et al. 2012. Domain organization of Legionella effector SetA. *Cell. Microbiol.* 14: 852-868.

MONOS
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Try **Rab 5B (F-9): sc-373725** or **Rab 5 (D-11): sc-46692**, our highly recommended monoclonal alternatives to Rab 5B (A-20).