

RABAPTIN-5 (C-20): sc-6162

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. Rab proteins are also an integral part of endocytic pathways. For example, Rab 5 is a potent regulator of endocytic transport that is localized to the plasma membrane, clathrin coated pits and early endosomes. A possible downstream effector of Rab 5, designated RABAPTIN-5, is a predicted 100 kDa coiled-coil protein that physically associates with Rab 5. Immunodepletion of RABAPTIN-5 strongly inhibits Rab 5-dependent early endosome fusion and may be required for membrane docking and fusion.

CHROMOSOMAL LOCATION

Genetic locus: RABEP1 (human) mapping to 17p13.2; Rabep1 (mouse) mapping to 11 B3.

SOURCE

RABAPTIN-5 (C-20) is available as either goat (sc-6162) or rabbit (sc-6162-R) polyclonal affinity purified antibody raised against a peptide mapping at the C-terminus of RABAPTIN-5 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-6162 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

RABAPTIN-5 (C-20) is recommended for detection of RABAPTIN-5 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).

RABAPTIN-5 (C-20) is also recommended for detection of RABAPTIN-5 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for RABAPTIN-5 siRNA (h): sc-36349, RABAPTIN-5 siRNA (m): sc-36350, RABAPTIN-5 shRNA Plasmid (h): sc-36349-SH, RABAPTIN-5 shRNA Plasmid (m): sc-36350-SH, RABAPTIN-5 shRNA (h) Lentiviral Particles: sc-36349-V and RABAPTIN-5 shRNA (m) Lentiviral Particles: sc-36350-V.

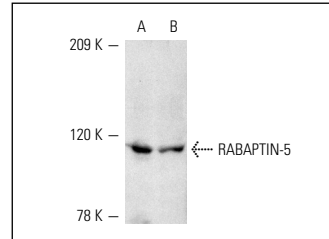
Molecular Weight of RABAPTIN-5: 100 kDa.

Positive Controls: mouse brain extract: sc-2253, rat brain extract: sc-2392 or HeLa whole cell lysate: sc-2200.

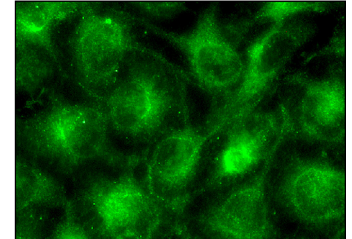
STORAGE

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

DATA



RABAPTIN-5 (C-20): sc-6162. Western blot analysis of RABAPTIN-5 expression in mouse brain (A) and rat brain (B) extracts.



RABAPTIN-5 (C-20)-R: sc-6162-R. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and membrane localization.

SELECT PRODUCT CITATIONS

1. Tang, V.W. 2006. Proteomic and bioinformatic analysis of epithelial tight junction reveals an unexpected cluster of synaptic molecules. *Biol. Direct.* 1: 37.
2. Mattera, R., et al. 2006. The Rab5 guanine nucleotide exchange factor Rabex-5 binds ubiquitin (Ub) and functions as a Ub ligase through an atypical Ub-interacting motif and a zinc-finger domain. *J. Biol. Chem.* 281: 6874-6883.
3. Choi, J.H., et al. 2013. Early endosomal abnormalities and cholinergic neuron degeneration in amyloid-β protein precursor transgenic mice. *J. Alzheimers Dis.* 34: 691-700.

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.



Try **RABAPTIN-5 (B-8): sc-271069** or **RABAPTIN-5 (G-9): sc-25275**, our highly recommended monoclonal alternatives to RABAPTIN-5 (C-20).