SANTA CRUZ BIOTECHNOLOGY, INC.

Rab 1A (C-19): sc-311

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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: RAB1A (human) mapping to 2p14; Rab1 (mouse) mapping to 11 A3.1.

SOURCE

Rab 1A (C-19) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within the C-terminus of Rab 1A 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-311 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Rab 1A (C-19) is recommended for detection of Rab 1A 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 1A (C-19) is also recommended for detection of Rab 1A in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Rab 1A siRNA (h): sc-41808, Rab 1A siRNA (m): sc-41809, Rab 1A shRNA Plasmid (h): sc-41808-SH, Rab 1A shRNA Plasmid (m): sc-41809-SH, Rab 1A shRNA (h) Lentiviral Particles: sc-41808-V and Rab 1A shRNA (m) Lentiviral Particles: sc-41809-V.

Molecular Weight of Rab 1A: 23 kDa.

Positive Controls: rat eye extract: sc-364805 or mouse eye extract: sc-364241.

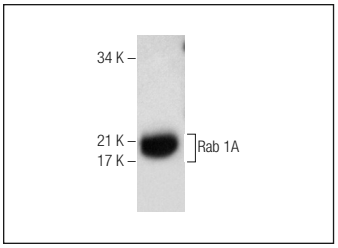
STORAGE

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

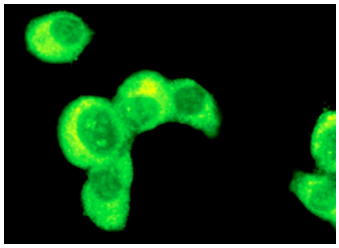
RESEARCH USE

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

DATA



Rab 1A (C-19): sc-311. Western blot analysis of Rab 1A expression in rat eye tissue extract.



Rab 1A (C-19): sc-311. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

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3. Liu, Y. and Luo, Z.Q. 2007. The *Legionella pneumophila* effector SidJ is required for efficient recruitment of endoplasmic reticulum proteins to the bacterial phagosome. Infect. Immun. 75: 592-603.
4. Martínez-Alonso, E., et al. 2007. Low-temperature-induced Golgi tubules are transient membranes enriched in molecules regulating intra-Golgi transport. Traffic 8: 359-368.
5. Dong, C. and Wu, G. 2007. Regulation of anterograde transport of adrenergic and angiotensin II receptors by Rab2 and Rab6 GTPases. Cell. Signal. 19: 2388-2399.
6. Zhang, X., et al. 2009. Rab1 GTPase and dimerization in the cell surface expression of angiotensin II type 2 receptor. J. Pharmacol. Exp. Ther. 330: 109-117.
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