

Rab 8A (63-BJ): sc-81909

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.

CHROMOSOMAL LOCATION

Genetic locus: RAB8A (human) mapping to 19p13.12; Rab8a (mouse) mapping to 8 B3.3.

SOURCE

Rab 8A (63-BJ) is a mouse monoclonal antibody raised against a C-terminal region of Rab 8A of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Rab 8A (63-BJ) is recommended for detection of Rab 8A 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).

Suitable for use as control antibody for Rab 8A siRNA (h): sc-41828, Rab 8A siRNA (m): sc-41829, Rab 8A shRNA Plasmid (h): sc-41828-SH, Rab 8A shRNA Plasmid (m): sc-41829-SH, Rab 8A shRNA (h) Lentiviral Particles: sc-41828-V and Rab 8A shRNA (m) Lentiviral Particles: sc-41829-V.

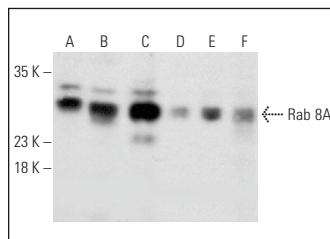
Molecular Weight of Rab 8A: 27 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, rat brain extract: sc-2392 or MDA-MB-231 cell lysate: sc-2232.

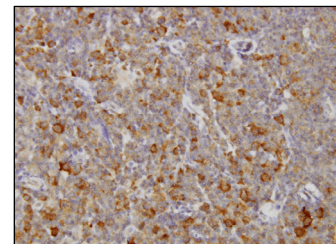
STORAGE

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

DATA



Rab 8A (63-BJ): sc-81909. Western blot analysis of Rab 8A expression in HeLa nuclear extract (A), MDA-MB-231 (B) and I-11.15 (C) whole cell lysates and mouse brain (D), rat brain (E) and rat lung (F) tissue extracts.



Rab 8A (63-BJ): sc-81909. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human lymphoma tissue showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Hurwitz, S.N., et al. 2018. An optimized method for enrichment of whole brain-derived extracellular vesicles reveals insight into neurodegenerative processes in a mouse model of Alzheimer's disease. *J. Neurosci. Methods* 307: 210-220.
2. Nam, D., et al. 2018. Characterization of Parkinson's disease-related pathogenic TMEM230 mutants. *Anim. Cells Syst.* 22: 140-147.
3. Quan, R., et al. 2020. Proteome analysis in a mammalian cell line reveals that PLK2 is involved in avian metapneumovirus type C (aMPV/C)-induced apoptosis. *Viruses* 12: 375.
4. Giacometti, J., et al. 2020. Olive leaf polyphenols (OLPs) stimulate GLUT4 expression and translocation in the skeletal muscle of diabetic rats. *Int. J. Mol. Sci.* 21: 8981.
5. Cheerathodi, M., et al. 2021. Epstein-Barr virus LMP1 modulates the CD63 interactome. *Viruses* 13: 675.
6. Ouyang, Q., et al. 2023. Rab8a as a mitochondrial receptor for lipid droplets in skeletal muscle. *Dev. Cell* 58: 289-305.e6.
7. Unapanta, A., et al. 2023. Endogenous Rab38 regulates LRRK2's membrane recruitment and substrate Rab phosphorylation in melanocytes. *J. Biol. Chem.* 299: 105192.
8. Sadeghsoltani, F., et al. 2024. Autophagy modulation effect on homotypic transfer of intracellular components via tunneling nanotubes in mesenchymal stem cells. *Stem Cell Res. Ther.* 15: 189.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.