Rab 2B (h): 293T Lysate: sc-172439



The Power to Question

BACKGROUND

The Ras-related superfamily of guanine nucleotide binding proteins includes the R-Ras, Rap, Ral/Rec and Rho/Rab subfamilies all of which are thought to play an important role in either endocytosis or in biosynthetic protein transport. The process of transporting newly synthesized proteins from the endoplasmic reticulum (ER) 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 2A (Rasrelated protein Rab-2A) and Rab 2B (Ras-related protein Rab-2B) are 212 and 216 amino acid proteins, respectively, that belong to the Ras-related GTPase superfamily. While both Rab 2A and Rab 2B are required for protein transport from the ER to the Golgi, Rab 2A is lipid-anchored to the ER-Golgi intermediate compartment membrane while Rab 2B is lipid anchored to the cytoplasmic side of the cell membrane.

REFERENCES

- Opdam, F.J., Kamps, G., Croes, H., van Bokhoven, H., Ginsel, L.A. and Fransen, J.A. 2000. Expression of Rab small GTPases in epithelial Caco-2 cells: Rab21 is an apically located GTP-binding protein in polarised intestinal epithelial cells. Eur. J. Cell Biol. 79: 308-316.
- 2. Ni, X., Ma, Y., Cheng, H., Jiang, M., Guo, L., Ji, C., Gu, S., Cao, Y., Xie, Y. and Mao, Y. 2002. Molecular cloning and characterization of a novel human Rab (Rab2B) gene. J. Hum. Genet. 47: 548-551.
- 3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 179509. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Ali, B.R., Wasmeier, C., Lamoreux, L., Strom, M. and Seabra, M.C. 2004.
 Multiple regions contribute to membrane targeting of Rab GTPases. J.
 Cell Sci. 117: 6401-6412.
- 5. Itoh, T., Satoh, M., Kanno, E. and Fukuda, M. 2006. Screening for target Rabs of TBC (Tre-2/Bub2/Cdc16) domain-containing proteins based on their Rab-binding activity. Genes Cells 11: 1023-1037.
- Mountjoy, J.R., Xu, W., McLeod, D., Hyndman, D. and Oko, R. 2008. RAB2A: a major subacrosomal protein of bovine spermatozoa implicated in acrosomal biogenesis. Biol. Reprod. 79: 223-232.
- Chun, D.K., McEwen, J.M., Burbea, M. and Kaplan, J.M. 2008. UNC-108/ Rab2 regulates postendocytic trafficking in *Caenorhabditis elegans*. Mol. Biol. Cell 19: 2682-2695.
- Fukuda, M., Kanno, E., Ishibashi, K. and Itoh, T. 2008. Large scale screening for novel rab effectors reveals unexpected broad Rab binding specificity. Mol. Cell. Proteomics 7: 1031-1042.

CHROMOSOMAL LOCATION

Genetic locus: RAB2B (human) mapping to 14q11.2.

PRODUCT

Rab 2B (h): 293T Lysate represents a lysate of human Rab 2B transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

Rab 2B (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive Rab 2B antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Furope +00800 4573 8000 49 6221 4503 0 www.scbt.com