SANTA CRUZ BIOTECHNOLOGY, INC.

Rab 7L1 (m2): 293T Lysate: sc-122915

BACKGROUND

The Ras-related superfamily of guanine nucleotide binding proteins includes the R-Ras, Rap, Ral/Rec and Rho/Rab subfamilies. Increasing data suggests an important role for Rab proteins 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 7L1, also known as RAB7L, is a 203 amino acid, ubiquitously expressed member of the Rab family of proteins that localizes to the cell membrane. Rab 7L1 contains four GTP-binding domains and shares 35% identity with Rab 7 and 94% identity with the rat protein Rab 29. In addition, Rab 7L1 is often used as a marker of T cells.

REFERENCES

1. Shimizu, F., Katagiri, T., Suzuki, M., Watanabe, T.K., Okuno, S., Kuga, Y., Nagata, M., Fujiwara, T., Nakamura, Y. and Takahashi, E. 1997. Cloning and chromosome assignment to 1q32 of a human cDNA (RAB7L1) encoding a small GTP-binding protein, a member of the RAS superfamily. Cytogenet. Cell Genet. 77: 261-263.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 603949. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
3. Middleton, R., Aldenhoven, J., Chen, Y., Backofen, B. and Moran, C. 2003. Improving the comparative map of porcine chromosome 9 with respect to human chromosomes 1, 7 and 11. Cytogenet. Genome Res. 102: 128-132.
4. Helip-Wooley, A. and Thoene, J.G. 2004. Sucrose-induced vacuolation results in increased expression of cholesterol biosynthesis and lysosomal genes. Exp. Cell Res. 292: 89-8100.
5. Gurkan, C., Lapp, H., Alory, C., Su, A.I., Hogenesch, J.B. and Balch, W.E. 2005. Large-scale profiling of Rab GTPase trafficking networks: the membrome. Mol. Biol. Cell 16: 3847-3864.
6. Deonarine, K., Panelli, M.C., Stashower, M.E., Jin, P., Smith, K., Slade, H.B., Norwood, C., Wang, E., Marincola, F.M. and Stroncek, D.F. 2007. Gene expression profiling of cutaneous wound healing. J. Transl. Med. 5: 11.

CHROMOSOMAL LOCATION

Genetic locus: Rab7l1 (mouse) mapping to 1 E4.

PRODUCT

Rab 7L1 (m2): 293T Lysate represents a lysate of mouse Rab 7L1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

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.

APPLICATIONS

Rab 7L1 (m2): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Rab 7L1 antibodies. Recommended use: 10-20 µl per lane.

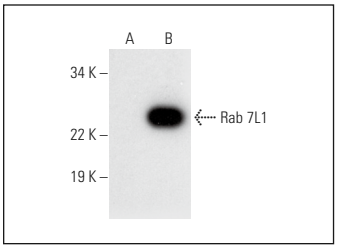
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Rab 7L1 (D-8): sc-398274 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Rab 7L1 expression in Rab 7L1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

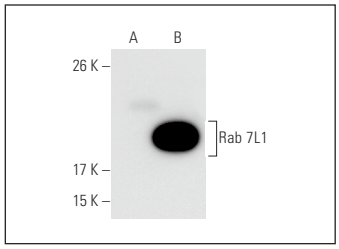
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



Rab 7L1 (D-8): sc-398274. Western blot analysis of Rab 7L1 expression in non-transfected: sc-117752 (**A**) and mouse Rab 7L1 transfected: sc-122915 (**B**) 293T whole cell lysates.



Rab 7L1 (31-E): sc-81924. Western blot analysis of Rab 7L1 expression in non-transfected: sc-117752 (**A**) and mouse Rab 7L1 transfected: sc-122915 (**B**) 293T whole cell lysates.

PROTOCOLS

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