

Rab 7L1 (D-13): sc-138573

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., et al. 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., et al. 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., et al. 2004. Sucrose-induced vacuolation results in increased expression of cholesterol biosynthesis and lysosomal genes. *Exp. Cell Res.* 292: 89-8100.
5. Gurkan, C., et al. 2005. Large-scale profiling of Rab GTPase trafficking networks: the membrome. *Mol. Biol. Cell* 16: 3847-3864.
6. Deonarine, K., et al. 2007. Gene expression profiling of cutaneous wound healing. *J. Transl. Med.* 5: 11.

CHROMOSOMAL LOCATION

Genetic locus: RAB7L1 (human) mapping to 1q32.1; Rab711 (mouse) mapping to 1 E4.

SOURCE

Rab 7L1 (D-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of Rab 7L1 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-138573 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Rab 7L1 (D-13) is recommended for detection of Rab 7L1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Rab 7L1 siRNA (h): sc-88818, Rab 7L1 siRNA (m): sc-152650, Rab 7L1 shRNA Plasmid (h): sc-88818-SH, Rab 7L1 shRNA Plasmid (m): sc-152650-SH, Rab 7L1 shRNA (h) Lentiviral Particles: sc-88818-V and Rab 7L1 shRNA (m) Lentiviral Particles: sc-152650-V.

Positive Controls: Jurkat whole cell lysate: sc-2204.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

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.


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 Satisfaction
 Guaranteed

Try **Rab 7L1 (D-8): sc-398274** or **Rab 7L1 (31-E): sc-81924**, our highly recommended monoclonal alternatives to Rab 7L1 (D-13).