

Rab 7L1 (D-8): sc-398274

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 RAB7L1, 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.

CHROMOSOMAL LOCATION

Genetic locus: RAB7L1 (human) mapping to 1q32.1; Rab7L1 (mouse) mapping to 1 E4.

SOURCE

Rab 7L1 (D-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 118-147 within an internal region of Rab 7L1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Rab 7L1 (D-8) is available conjugated to agarose (sc-398274 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398274 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398274 PE), fluorescein (sc-398274 FITC), Alexa Fluor® 488 (sc-398274 AF488), Alexa Fluor® 546 (sc-398274 AF546), Alexa Fluor® 594 (sc-398274 AF594) or Alexa Fluor® 647 (sc-398274 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398274 AF680) or Alexa Fluor® 790 (sc-398274 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398274 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

Rab 7L1 (D-8) is recommended for detection of Rab 7L1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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) 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.

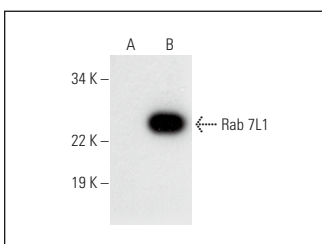
Molecular Weight of Rab 7L1: 23 kDa.

Positive Controls: Rab 7L1 (m2): 293T Lysate: sc-122915 or Rab 7L1 (h): 293T Lysate: sc-175274.

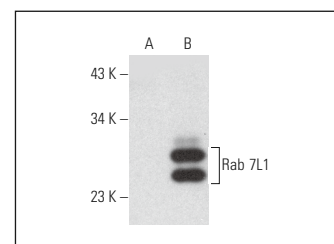
RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

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 (D-8): sc-398274. Western blot analysis of Rab 7L1 expression in non-transfected: sc-117752 (A) and human Rab 7L1 transfected: sc-175274 (B) 293T whole cell lysates.

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.