

Rab 31 (C-15): sc-85111

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 31, also known as RAB22B, is a 194 amino lipid-anchored protein that localizes to the cytoplasmic side of the cell membrane and belongs to the Ras-related GTPase superfamily. Expressed at high levels in lung, brain and heart, Rab 31 may function in a similar manner to other Rab proteins, namely playing a role in protein transport.

REFERENCES

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3. Bao, X., Faris, A.E., Jang, E.K. and Haslam, R.J. 2002. Molecular cloning, bacterial expression and properties of Rab 31 and Rab 32. *Eur. J. Biochem.* 269: 259-271.
4. Ng, E.L., Wang, Y. and Tang, B.L. 2007. Rab 22Bs role in *trans*-Golgi network membrane dynamics. *Biochem. Biophys. Res. Commun.* 361: 751-757.
5. Lodhi, I.J., Chiang, S.H., Chang, L., Vollenweider, D., Watson, R.T., Inoue, M., Pessin, J.E. and Saltiel, A.R. 2007. Gapex-5, a Rab 31 guanine nucleotide exchange factor that regulates Glut4 trafficking in adipocytes. *Cell Metab.* 5: 59-72.

CHROMOSOMAL LOCATION

Genetic locus: RAB31 (human) mapping to 18p11.22; Rab31 (mouse) mapping to 17 E1.1.

SOURCE

Rab 31 (C-15) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of Rab 31 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-85111 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 31 (C-15) is recommended for detection of Rab 31 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other Rab family members.

Rab 31 (C-15) is also recommended for detection of Rab 31 in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for Rab 31 siRNA (h): sc-76327, Rab 31 siRNA (m): sc-152635, Rab 31 shRNA Plasmid (h): sc-76327-SH, Rab 31 shRNA Plasmid (m): sc-152635-SH, Rab 31 shRNA (h) Lentiviral Particles: sc-76327-V and Rab 31 shRNA (m) Lentiviral Particles: sc-152635-V.

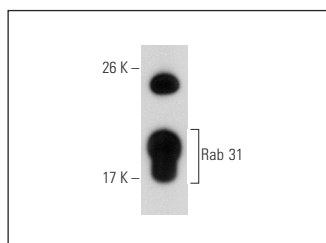
Molecular Weight of Rab 31: 26 kDa.

Positive Controls: mouse brain extract: sc-2253 or mouse lung extract: sc-2390.

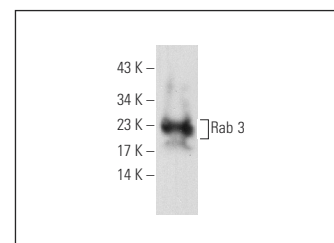
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



Rab 31 (C-15): sc-85111. Western blot analysis of Rab 31 expression in mouse brain tissue extract.



Rab 31 (C-15): sc-85111. Western blot analysis of Rab 31 expression in mouse lung tissue extract.

RESEARCH USE

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

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Try **Rab 31 (4D12): sc-517069**, our highly recommended monoclonal alternative to Rab 31 (C-15).