Rab 38 (N-12): sc-169092



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. 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 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 38, also known as rrGTPbp or NY-MEL-1, is a melanocyte- and lung-specific member of the Rab family of proteins and localizes to the cell membrane, where it is believed to participate in melanosomal transport and docking. Rab 38 may play an important role in melanogenesis and in the targeting of TRP1, a protein involved in the production of melanin. A mutation in the gene encoding Rab 38 may result in oculocutaneous albinism (OCA), a condition in which pigment is absent from eye, skin and hair.

REFERENCES

- Jäger, D., et al. 2000. Serological cloning of a melanocyte rab guanosine 5'-triphosphate-binding protein and a chromosome condensation protein from a melanoma complementary DNA library. Cancer Res. 60: 3584-3591.
- Loftus, S.K., et al. 2002. Mutation of melanosome protein RAB38 in chocolate mice. Proc. Natl. Acad. Sci. USA 99: 4471-4476.
- 3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 606281. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- 4. Osanai, K., et al. 2005. Expression and characterization of Rab38, a new member of the Rab small G protein family. Biol. Chem. 386: 143-153.
- Wasmeier, C., et al. 2006. Rab38 and Rab32 control post-Golgi trafficking of melanogenic enzymes. J. Cell Biol. 175: 271-281.
- Walton, S.M., et al. 2006. Spontaneous CD8 T cell responses against the melanocyte differentiation antigen RAB38/NY-MEL-1 in melanoma patients. J. Immunol. 177: 8212-8218.
- Zippelius, A., et al. 2007. Melanocyte differentiation antigen RAB38/NY-MEL-1 induces frequent antibody responses exclusively in melanoma patients. Cancer Immunol. Immunother. 56: 249-258.

CHROMOSOMAL LOCATION

Genetic locus: RAB38 (human) mapping to 11q14.2; Rab38 (mouse) mapping to 7 E1.

SOURCE

Rab 38 (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Rab 38 of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-169092 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Rab 38 (N-12) is recommended for detection of Rab 38 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 38 (N-12) is also recommended for detection of Rab 38 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Rab 38 siRNA (h): sc-96475, Rab 38 siRNA (m): sc-152642, Rab 38 shRNA Plasmid (h): sc-96475-SH, Rab 38 shRNA Plasmid (m): sc-152642-SH, Rab 38 shRNA (h) Lentiviral Particles: sc-96475-V and Rab 38 shRNA (m) Lentiviral Particles: sc-152642-V.

Molecular Weight of Rab 38: 24 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.

PROTOCOLS

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



Try **Rab 38 (A-8):** sc-390176 or **Rab 38 (11B-7):** sc-81918, our highly recommended monoclonal alternatives to Rab 38 (N-12).

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