

Rab 38 (11B-7): sc-81918

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 rGTPbp and 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

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- Loftus, S.K., et al. 2002. Mutation of melanosome protein Rab 38 in chocolate mice. *Proc. Natl. Acad. Sci. USA* 99: 4471-4476.
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- Osanai, K., et al. 2005. Expression and characterization of Rab 38, a new member of the Rab small G protein family. *Biol. Chem.* 386: 143-153.
- Wasmeier, C., et al. 2006. Rab 38 and Rab 32 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 Rab 38/NY-MEL-1 in melanoma patients. *J. Immunol.* 177: 8212-8218.
- Zippelius, A., et al. 2007. Melanocyte differentiation antigen Rab 38/NY-MEL-1 induces frequent antibody responses exclusively in melanoma patients. *Cancer Immunol. Immunother.* 56: 249-258.
- Osanai, K. and Voelker, D.R. 2008. Analysis and expression of Rab 38 in oculocutaneous lung disease. *Meth. Enzymol.* 438: 203-215.

CHROMOSOMAL LOCATION

Genetic locus: RAB38 (human) mapping to 11q14.2.

SOURCE

Rab 38 (11B-7) is a mouse monoclonal antibody raised against recombinant Rab 38 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Rab 38 (11B-7) is recommended for detection of Rab 38 of human origin by Western Blotting (starting dilution to be determined by researcher, dilution range 1:100-1:5000), immunoprecipitation [1-2 µl per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution to be determined by researcher, dilution range 1:100-1:5000).

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

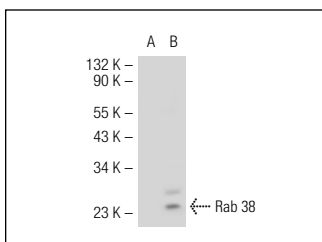
Molecular Weight of Rab 38: 24 kDa.

Positive Controls: Rab 38 (h2): 293T Lysate: sc-174929 or A-431 whole cell lysate: sc-2201.

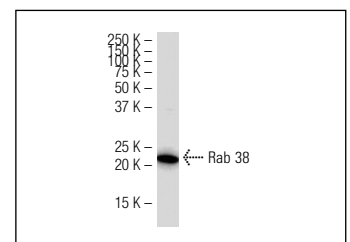
RECOMMENDED SUPPORT REAGENTS

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, 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 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 38 (11B-7): sc-81918. Western blot analysis of Rab 38 expression in non-transfected: sc-117752 (A) and human Rab 38 transfected: sc-174929 (B) 293T whole cell lysates.



Rab 38 (11B-7): sc-1. Western blot analysis of Rab 38 expression in A-431 whole cell lysate.

SELECT PRODUCT CITATIONS

- Biernacki, M.A., et al. 2010. Efficacious immune therapy in chronic myelogenous leukemia (CML) recognizes antigens that are expressed on CML progenitor cells. *Cancer Res.* 70: 906-915.

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.