SANTA CRUZ BIOTECHNOLOGY, INC.

Rab 38 (A-8): sc-390176

SANTA CRUZ BIOTECHNOLOGY

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.

CHROMOSOMAL LOCATION

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

SOURCE

Rab 38 (A-8) is a mouse monoclonal antibody raised against amino acids 167-211 mapping at the C-terminus of Rab 38 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Rab 38 (A-8) is available conjugated to agarose (sc-390176 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-390176 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390176 PE), fluorescein (sc-390176 FITC), Alexa Fluor® 488 (sc-390176 AF488), Alexa Fluor® 546 (sc-390176 AF546), Alexa Fluor® 594 (sc-390176 AF594) or Alexa Fluor® 647 (sc-390176 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390176 AF680) or Alexa Fluor® 790 (sc-390176 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Rab 38 (A-8) is recommended for detection of Rab 38 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 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.

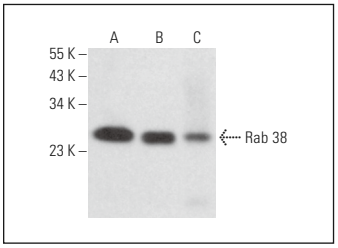
Molecular Weight of Rab 38: 24 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, C32 whole cell lysate: sc-2205 or rat liver extract: sc-2395.

STORAGE

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

DATA



Rab 38 (A-8): sc-390176. Western blot analysis of Rab 38 expression in A-431 (**A**) and C32 (**B**) whole cell lysates and rat liver tissue extract (**C**).

SELECT PRODUCT CITATIONS

1. Huang, M., et al. 2018. A targeted quantitative proteomic approach assesses the reprogramming of small GTPases during melanoma metastasis. Cancer Res. 78: 5431-5445.
2. Waschbüsch, D., et al. 2019. Rab32 interacts with SNX6 and affects retromer-dependent Golgi trafficking. PLoS ONE 14: e0208889.
3. Effern, M., et al. 2020. Adoptive T cell therapy targeting different gene products reveals diverse and context-dependent immune evasion in melanoma. Immunity 53: 564-580.e9.
4. Adelmann, C.H., et al. 2020. MFSD12 mediates the import of cysteine into melanosomes and lysosomes. Nature 588: 699-704.
5. Iwagawa, T., et al. 2023. Evaluation of CRISPR/Cas9 exon-skipping vector for choroideremia using human induced pluripotent stem cell-derived RPE. J. Gene Med. 25: e3464.
6. Ng, P.Y., et al. 2023. Sugar transporter Slc37a2 regulates bone metabolism in mice via a tubular lysosomal network in osteoclasts. Nat. Commun. 14: 906.
7. Rus, A.A., et al. 2023. NPC1 plays a role in the trafficking of specific cargo to melanosomes. J. Biol. Chem. 299: 105024.
8. Noda, K., et al. 2023. Characterization of Rab32- and Rab38-positive lysosome-related organelles in osteoclasts and macrophages. J. Biol. Chem. 299: 105191.
9. Unapanta, A., et al. 2023. Endogenous Rab38 regulates LRRK2's membrane recruitment and substrate Rab phosphorylation in melanocytes. J. Biol. Chem. 299: 105192.

RESEARCH USE

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