

Rab 36 (379.2): sc-81916

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 36 is a ubiquitously expressed member of the Rab family of proteins and localizes to the Golgi membrane where it is believed to participate in protein transport. The gene encoding Rab 36 localizes to a critical region of chromosome 22 that is often deleted or involved in translocations in malignant rhabdoid tumors (MRTs). This suggests that Rab 36 may play a role in the development of MRTs.

REFERENCES

1. Mori, T., Fukuda, Y., Kuroda, H., Matsumura, T., Ota, S., Sugimoto, T., Nakamura, Y. and Inazawa, J. 1999. Cloning and characterization of a novel Rab-family gene, Rab36, within the region at 22q11.2 that is homozygously deleted in malignant rhabdoid tumors. *Biochem. Biophys. Res. Commun.* 254: 594-600.
2. Zhou, J., Fogelgren, B., Wang, Z., Roe, B.A. and Biegel, J.A. 2000. Isolation of genes from the rhabdoid tumor deletion region in chromosome band 22q11.2. *Gene* 241: 133-141.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 605662. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Chen, T., Han, Y., Yang, M., Zhang, W., Li, N., Wan, T., Guo, J. and Cao, X. 2003. Rab39, a novel Golgi-associated Rab GTPase from human dendritic cells involved in cellular endocytosis. *Biochem. Biophys. Res. Commun.* 303: 1114-1120.
5. Sun, P., Yamamoto, H., Suetsugu, S., Miki, H., Takenawa, T. and Endo, T. 2003. Small GTPase Rah/Rab34 is associated with membrane ruffles and macropinosomes and promotes macropinosome formation. *J. Biol. Chem.* 278: 4063-4071.

CHROMOSOMAL LOCATION

Genetic locus: RAB36 (human) mapping to 22q11.23.

SOURCE

Rab 36 (379.2) is a mouse monoclonal antibody raised against recombinant Rab 36 of human origin.

PRODUCT

Each vial contains 50 µg IgG_{2a} kappa light chain in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

Rab 36 (379.2) is recommended for detection of Rab 36 of 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), immunohistochemistry (including paraffin-embedded sections) (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 36 siRNA (h): sc-76328, Rab 36 shRNA Plasmid (h): sc-76328-SH and Rab 36 shRNA (h) Lentiviral Particles: sc-76328-V.

Molecular Weight of Rab 36: 36 kDa.

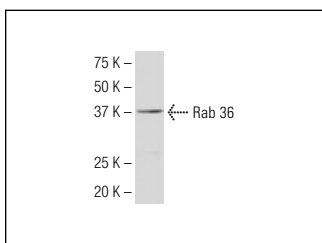
Positive Controls: A-431 whole cell lysate: sc-2201.

RECOMMENDED SUPPORT REAGENTS

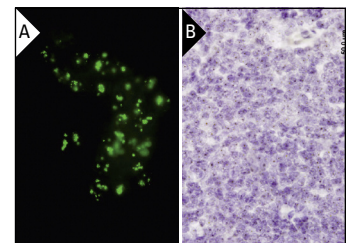
To ensure optimal results, the following support reagents are recommended:

- 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 36 (379.2): sc-81916. Western blot analysis of Rab 36 expression in A-431 whole cell lysate.



Rab 36 (379.2): sc-81916. Immunofluorescence staining of paraformaldehyde-fixed A-431 cells (A) showing cytoplasmic localization, and immunoperoxidase staining of formalin-fixed, paraffin-embedded human tonsil tissue (B) showing nuclear and cytoplasmic localization.

RESEARCH USE

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

PROTOCOLS

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