

RAB3IP (S-14): sc-162069

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. RAB3IP (RAB3A interacting protein), also known as Rabin-3 or SSX2-IP, is a 406 amino acid protein that localizes to both the nucleus and the cytoplasm, and exists as multiple alternatively spliced isoforms. Expressed in placenta, brain, heart, pancreas and kidney, RAB3IP interacts with Rab 3A, Rab 3B and SSX2 and, via this interaction, may regulate Rab function as well as SSX2-induced malignancies.

REFERENCES

1. Olkkonen, V.M., Dupree, P., Killisch, I., Lütcke, A., Zerial, M. and Simons, K. 1993. Molecular cloning and subcellular localization of three GTP-binding proteins of the Rab subfamily. *J. Cell Sci.* 106: 1249-1261.
2. Brondyk, W.H., McKiernan, C.J., Fortner, K.A., Stabila, P., Holz, R.W. and Macara, I.G. 1995. Interaction cloning of Rabin3, a novel protein that associates with the Ras-like GTPase Rab 3A. *Mol. Cell. Biol.* 15: 1137-1143.
3. Chen, D., Guo, J. and Gahl, W.A. 1997. Rab GTPases expressed in human melanoma cells. *Biochim. Biophys. Acta* 1355: 1-6.
4. de Bruijn, D.R., dos Santos, N.R., Kater-Baats, E., Thijssen, J., van den Berk, L., Stap, J., Balemans, M., Schepens, M., Merx, G. and van Kessel, A.G. 2002. The cancer-related protein SSX2 interacts with the human homologue of a Ras-like GTPase interactor, RAB3IP, and a novel nuclear protein, SSX2IP. *Genes Chromosomes Cancer* 34: 285-298.
5. Schlüter, O.M., Khvotchev, M., Jahn, R. and Südhof, T.C. 2002. Localization versus function of Rab 3 proteins. Evidence for a common regulatory role in controlling fusion. *J. Biol. Chem.* 277: 40919-40929.
6. Online Mendelian Inheritance in Man, OMIM™. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 608686. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
7. Fischer, U., Keller, A., Leidinger, P., Deutscher, S., Heisel, S., Urbschat, S., Lenhof, H.P. and Meese, E. 2008. A different view on DNA amplifications indicates frequent, highly complex, and stable amplicons on 12q13-21 in glioma. *Mol. Cancer Res.* 6: 576-584.
8. Fukuda, M., Kanno, E., Ishibashi, K. and Itoh, T. 2008. Large scale screening for novel Rab effectors reveals unexpected broad Rab binding specificity. *Mol. Cell. Proteomics* 7: 1031-1042.

CHROMOSOMAL LOCATION

Genetic locus: RAB3IP (human) mapping to 12q15; Rab3ip (mouse) mapping to 10 D2.

SOURCE

RAB3IP (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of RAB3IP of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-162069 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

RAB3IP (S-14) is recommended for detection of RAB3IP 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).

RAB3IP (S-14) is also recommended for detection of RAB3IP in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for RAB3IP siRNA (h): sc-95935, RAB3IP siRNA (m): sc-152666, RAB3IP shRNA Plasmid (h): sc-95935-SH, RAB3IP shRNA Plasmid (m): sc-152666-SH, RAB3IP shRNA (h) Lentiviral Particles: sc-95935-V and RAB3IP shRNA (m) Lentiviral Particles: sc-152666-V.

Molecular Weight of RAB3IP: 56 kDa.

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) or donkey anti-goat IgG-TR: sc-2783 (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.