

RIN2 (N-17): sc-85890

BACKGROUND

RIN2 (Ras and Rab interactor 2) or RASSF4, Ras interaction/interference protein 2, Ras inhibitor JC265 or Ras association domain family 4, is an 895 amino acid Ras effector protein which localizes to the cytoplasm. As a member of the RIN family of Ras interaction-interference proteins, RIN2 may be necessary for Rab 5 protein activation via guanine nucleotide exchange, and plays a role in endocytosis. RIN2 is broadly expressed in heart, placenta, lung and kidney and is also known to be expressed at lower levels in spleen, skeletal muscle and peripheral blood. With the exception of Rab 5, RIN2 does not associate with other members of the Rab family and exists as a homotetramer likely formed by two dimers in anti-parallel conformation. RIN2 has two known isoforms and contains three domains: Ras associating, SH2 and VPS9.

REFERENCES

- Colicelli, J., Nicolette, C., Birchmeier, C., Rodgers, L., Riggs, M. and Wigler, M. 1991. Expression of three mammalian cDNAs that interfere with Ras function in *Saccharomyces cerevisiae*. Proc. Natl. Acad. Sci. USA 88: 2913-2917.
- Kamei, T., Matozaki, T., Sakisaka, T., Kodama, A., Yokoyama, S., Peng, Y.F., Nakano, K., Takaishi, K. and Takai, Y. 1999. Coendocytosis of cadherin and c-Met coupled to disruption of cell-cell adhesion in MDCK cells-regulation by Rho, Rac and Rab small G proteins. Oncogene 18: 6776-6784.
- Saito, K., Murai, J., Kajihio, H., Kontani, K., Kurosu, H. and Katada, T. 2002. A novel binding protein composed of homophilic tetramer exhibits unique properties for the small GTPase Rab 5. J. Biol. Chem. 277: 3412-3418.
- Kajihio, H., Saito, K., Tsujita, K., Kontani, K., Araki, Y., Kurosu, H. and Katada, T. 2003. RIN3: a novel Rab 5 GEF interacting with amphiphysin II involved in the early endocytic pathway. J. Cell Sci. 116: 4159-4168.
- Kimura, T., Sakisaka, T., Baba, T., Yamada, T. and Takai, Y. 2006. Involvement of the Ras-Ras-activated Rab 5 guanine nucleotide exchange factor RIN2-Rab 5 pathway in the hepatocyte growth factor-induced endocytosis of E-cadherin. J. Biol. Chem. 281: 10598-10609.
- Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 610222. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: RIN2 (human) mapping to 20p11.23; Rin2 (mouse) mapping to 2 G1.

SOURCE

RIN2 (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of RIN2 of human origin.

STORAGE

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

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-85890 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

RIN2 (N-17) is recommended for detection of RIN2 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 RIN1 and RIN4.

RIN2 (N-17) is also recommended for detection of RIN2 in additional species, including canine, bovine and avian.

Suitable for use as control antibody for RIN2 siRNA (h): sc-76407, RIN2 siRNA (m): sc-152968, RIN2 shRNA Plasmid (h): sc-76407-SH, RIN2 shRNA Plasmid (m): sc-152968-SH, RIN2 shRNA (h) Lentiviral Particles: sc-76407-V and RIN2 shRNA (m) Lentiviral Particles: sc-152968-V.

Molecular Weight of RIN2: 116 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.

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.