SANTA CRUZ BIOTECHNOLOGY, INC.

RICS (A-14): sc-139167

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

RICS, also known as GRIT, p200RhoGAP, p250GAP or GC-GAP, is a 2,087 amino acid protein that localizes to various regions within the cell, including the cell junction, the endosomal membrane and the endoplasmic reticulum, and contains one SH3 domain, one Rho GAP domain and one PX domain. Existing as multiple alternatively spliced isoforms that are expressed in a tissue-specific manner, RICS functions as a GTPase-activating protein (GAP) that promotes GTP hydrolysis on a variety of target proteins and is thought to be involved in neuronal differentiation. Additionally, RICS is involved in actin reorganization in dendritic spines and may participate in Rho- and Ras-regulated signaling pathways in cell growth regulation. Specific RICS isoforms are subject to *in vitro* phosphorylation, an event which inhibits GAP activity.

REFERENCES

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3. Moon, S.Y., et al. 2003. Characterization of a brain-specific Rho GTPase-activating protein, p200RhoGAP. J. Biol. Chem. 278: 4151-4159.
4. Okabe, T., et al. 2003. RICS, a novel GTPase-activating protein for Cdc42 and Rac 1, is involved in the β-catenin-N-cadherin and N-methyl-D-aspartate receptor signaling. J. Biol. Chem. 278: 9920-9927.
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6. Vo, N., et al. 2005. A cAMP-response element binding protein-induced microRNA regulates neuronal morphogenesis. Proc. Natl. Acad. Sci. USA 102: 16426-16431.
7. Hayashi, T., et al. 2007. PX-RICS, a novel splicing variant of RICS, is a main isoform expressed during neural development. Genes Cells 12: 929-939.
8. Nakamura, T., et al. 2008. PX-RICS mediates ER-to-Golgi transport of the N-cadherin/β-catenin complex. Genes Dev. 22: 1244-1256.
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CHROMOSOMAL LOCATION

Genetic locus: ARHGAP32 (human) mapping to 11q24.3; Arhgap32 (mouse) mapping to 9 A4.

SOURCE

RICS (A-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of RICS 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-139167 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

RICS (A-14) is recommended for detection of RICS 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).

RICS (A-14) is also recommended for detection of RICS in additional species, including equine, canine and porcine.

Suitable for use as control antibody for RICS siRNA (h): sc-96831, RICS siRNA (m): sc-152958, RICS shRNA Plasmid (h): sc-96831-SH, RICS shRNA Plasmid (m): sc-152958-SH, RICS shRNA (h) Lentiviral Particles: sc-96831-V and RICS shRNA (m) Lentiviral Particles: sc-152958-V.

Molecular Weight of RICS: 250 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.