SANTA CRUZ BIOTECHNOLOGY, INC.

RasGRP3 (H-70): sc-98910

BACKGROUND

Members of the Ras subfamily of GTPases function in signal transduction as GTP/GDP-modulated switches that rotate between inactive GDP- and active GTP-bound states. Guanine nucleotide exchange factors (GEFs), such as RasGRP3 (GRP3), act as Ras activators by promoting retrieval of GTP to maintain the active GTP-bound state and are the fundamental link between cell surface receptors and Ras activation. Highest levels of RasGRP3 expression are observed in heart, brain, lung and kidney tissues, and intermediate expression is observed in liver, skeletal muscle, pancreas, spleen, testis and ovary tissues. RasGRP3, which shares significant sequence identity with the calcium- and diacylglycerol-activated GEFs, activates Ras and Rap 1 and promotes activation of ELK1 in prostate cancer cell lines.

REFERENCES

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3. Aiba, Y., et al. 2004. Activation of RasGRP3 by phosphorylation of Thr 133 is required for B cell receptor-mediated Ras activation. Proc. Natl. Acad. Sci. USA 101: 16612-16617.
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5. Braun, D.C., et al. 2005. Role of phorbol ester localization in determining protein kinase C or RasGRP3 translocation: real-time analysis using fluorescent ligands and proteins. Mol. Cancer Ther. 4: 141-150.
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CHROMOSOMAL LOCATION

Genetic locus: RASGRP3 (human) mapping to 2p22.3; Rasgrp3 (mouse) mapping to 17 E2.

SOURCE

RasGRP3 (H-70) is a rabbit polyclonal antibody raised against amino acids 1-69 mapping at the N-terminus of RasGRP3 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.

APPLICATIONS

RasGRP3 (H-70) is recommended for detection of RasGRP3 of mouse, rat and 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

RasGRP3 (H-70) is also recommended for detection of RasGRP3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for RasGRP3 siRNA (h): sc-61444, RasGRP3 siRNA (m): sc-61445, RasGRP3 shRNA Plasmid (h): sc-61444-SH, RasGRP3 shRNA Plasmid (m): sc-61445-SH, RasGRP3 shRNA (h) Lentiviral Particles: sc-61444-V and RasGRP3 shRNA (m) Lentiviral Particles: sc-61445-V.

Molecular Weight of RasGRP3: 80 kDa.

Positive Controls: Raji whole cell lysate: sc-364236, Ramos cell lysate: sc-2216 or IB4 whole cell lysate: sc-364780.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (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.