SANTA CRUZ BIOTECHNOLOGY, INC.

RGSL1 (M-18): sc-248424



BACKGROUND

The RGSL1, RGS16 and RGS8 genes within the 1q25.3 region belong to the novel family of regulators of G protein signaling (RGS) genes, which increase the GTPase activity of the G α subunit to attenuate signaling from the G protein-coupled receptor. RGSL1 (regulator of G protein signaling like 1) is a 1,076 amino acid multi-pass membrane protein that contains one RGS domain. The RGSL1 protein exhibits high expression in testis with lower expression in bone marrow and prostate. The 1q25.3 region is said to be highly unstable in breast tumors comprising a cluster of chromosomal breakpoints, intragenic microdeletions, frequent allelic imbalance correlating with long metastasis-free survival. Mutations in RGSL1 have been found in breast cancer. Existing as six alternatively spliced isoforms, the RGSL1 gene is conserved in chimpanzee, canine, bovine, mouse, rat, chicken and zebrafish. The RGSL1 gene contains 15 exons and spans 67.1 kb.

REFERENCES

- Silva, A.P., Salim, A.C., Bulgarelli, A., de Souza, J.E., Osório, E., Caballero, O.L., Iseli, C., Stevenson, B.J., Jongeneel, C.V., de Souza, S.J., Simpson, A.J. and Camargo, A.A. 2003. Identification of 9 novel transcripts and two RGSL genes within the hereditary prostate cancer region (HPC1) at 1q25. Gene 310: 49-57.
- Tosetti, P., Parente, V., Taglietti, V., Dunlap, K. and Toselli, M. 2003. Chick RGS2L demonstrates concentration-dependent selectivity for pertussis toxin-sensitive and -insensitive pathways that inhibit L-type Ca²⁺ channels. J. Physiol. 549: 157-169.
- Gregory, S.G., Barlow, K.F., McLay, K.E., Kaul, R., Swarbreck, D., Dunham, A., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. Nature 441: 315-321.
- 4. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 611012. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Wiechec, E., Overgaard, J. and Hansen, L.L. 2008. A fragile site within the HPC1 region at 1q25.3 affecting RGS16, RGSL1, and RGSL2 in human breast carcinomas. Genes Chromosomes Cancer 47: 766-780.
- Wiechec, E., Wiuf, C., Overgaard, J. and Hansen, L.L. 2011. High-resolution melting analysis for mutation screening of RGSL1, RGS16, and RGS8 in breast cancer. Cancer Epidemiol. Biomarkers Prev. 20: 397-407.

CHROMOSOMAL LOCATION

Genetic locus: RGSL1 (human) mapping to 1q25.3; Rgsl1 (mouse) mapping to 1 G3.

SOURCE

RGSL1 (M-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of RGSL1 of mouse origin.

STORAGE

Store at 4° C, **D0 NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PRODUCT

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

Blocking peptide available for competition studies, sc-248424 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

RGSL1 (M-18) is recommended for detection of RGSL1 of mouse 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).

Suitable for use as control antibody for RGSL1 siRNA (m): sc-152842, RGSL1 shRNA Plasmid (m): sc-152842-SH and RGSL1 shRNA (m) Lentiviral Particles: sc-152842-V.

Molecular Weight of RGSL1 isoforms 1/2/3/4/5/6: 126/71/59/47/56/63 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) Immunofluo-rescence: use 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.