

RGSL1 (N-17): sc-248419

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., et al. 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., et al. 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., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. *Nature* 441: 315-321.
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- Wiechec, E., et al. 2008. A fragile site within the HPC1 region at 1q25.3 affecting RGS16, RGSL1, and RGS2L in human breast carcinomas. *Genes Chromosomes Cancer* 47: 766-780.
- Wiechec, E., et al. 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; Rgs1 (mouse) mapping to 1 G3.

SOURCE

RGSL1 (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of RGSL1 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

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-248419 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

RGSL1 (N-17) is recommended for detection of RGSL1 of mouse 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).

RGSL1 (N-17) is also recommended for detection of RGSL1 in additional species, including equine, canine, bovine and porcine.

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.

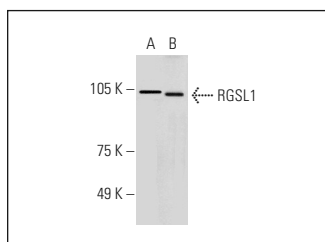
Molecular Weight of RGSL1 isoforms 1/2/3/4/5/6: 126/71/59/47/56/63 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210 or mouse brain extract: sc-2253.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



RGSL1 (N-17): sc-248419. Western blot analysis of RGSL1 expression in NIH/3T3 whole cell lysate (A) and mouse brain tissue extract (B).

RESEARCH USE

For research use only, not for use in diagnostic procedures.