

RGL1 (H-88): sc-68382

BACKGROUND

Ral GDS (Ral guanine nucleotide dissociation stimulator) is a guanine nucleotide exchange factor (GEF) that activates Ral and is implicated in oncogenic Ras-induced cell transformation. RGL1 (Ral guanine nucleotide dissociation stimulator-like 1), also known as RGL or RalGDS-like 1, is a 768 amino acid protein that is a putative GEF. Strongly expressed in brain, heart, spleen, kidney and testis, RGL1 is a downstream effector protein that is involved in Ras and Ral signaling pathways. RGL1 contains an N-terminal Ras-GEF domain and a C-terminal Ras-interacting domain that interacts with the GTP-bound form of Ras through its effector loop. Due to its similarity to Ral GDS, RGL1 may be implicated in carcinogenesis. Two isoforms exist due to alternative splicing events.

REFERENCES

1. Wolthuis, R.M., et al. 1996. RalGDS-like factor (Rlf) is a novel Ras and Rap 1A-associating protein. *Oncogene* 13: 353-362.
2. Murai, H., et al. 1997. Characterization of Ral GDP dissociation stimulator-like (RGL) activities to regulate c-Fos promoter and the GDP/GTP exchange of Ral. *J. Biol. Chem.* 272: 10483-10490.
3. Shirouzu, M., et al. 1999. Double-mutant analysis of the interaction of Ras with the Ras-binding domain of RGL. *Biochemistry* 38: 5103-5110.
4. Sood, R., et al. 2000. The human RGL (RalGDS-like) gene: cloning, expression analysis and genomic organization. *Biochim. Biophys. Acta* 1491: 285-288.
5. Wen, C.K. and Chang, C. 2002. *Arabidopsis* RGL1 encodes a negative regulator of gibberellin responses. *Plant Cell* 14: 87-100.
6. González-García, A., et al. 2005. RalGDS is required for tumor formation in a model of skin carcinogenesis. *Cancer Cell* 7: 219-226.
7. Ryu, C.H., et al. 2005. The merlin tumor suppressor interacts with Ral guanine nucleotide dissociation stimulator and inhibits its activity. *Oncogene* 24: 5355-5364.
8. Busov, V., et al. 2006. Transgenic modification of gai or RGL1 causes dwarfing and alters gibberellins, root growth, and metabolite profiles in *Populus*. *Planta* 224: 288-299.
9. Sjöblom, T., et al. 2006. The consensus coding sequences of human breast and colorectal cancers. *Science* 314: 268-274.

CHROMOSOMAL LOCATION

Genetic locus: RGL1 (human) mapping to 1q25.3; Rgl1 (mouse) mapping to 1 G2.

SOURCE

RGL1 (H-88) is a rabbit polyclonal antibody raised against amino acids 501-588 mapping within an internal region of RGL1 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

RGL1 (H-88) is recommended for detection of RGL1 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).

Suitable for use as control antibody for RGL1 siRNA (h): sc-62936, RGL1 siRNA (m): sc-62937, RGL1 shRNA Plasmid (h): sc-62936-SH, RGL1 shRNA Plasmid (m): sc-62937-SH, RGL1 shRNA (h) Lentiviral Particles: sc-62936-V and RGL1 shRNA (m) Lentiviral Particles: sc-62937-V.

Molecular Weight of RGL1: 87 kDa.

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.


 MONOS
 Satisfaction
 Guaranteed

Try **RGL1 (G-2): sc-377170** or **RGL1 (43-Q5): sc-81929**, our highly recommended monoclonal alternatives to RGL1 (H-88).