

RGL1 (G-2): sc-377170

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., et al. 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.

CHROMOSOMAL LOCATION

Genetic locus: RGL1 (human) mapping to 1q25.3; Rgl1 (mouse) mapping to 1 G3.

SOURCE

RGL1 (G-2) is a mouse monoclonal antibody raised against amino acids 501-588 mapping within an internal region of RGL1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RGL1 (G-2) is available conjugated to agarose (sc-377170 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377170 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377170 PE), fluorescein (sc-377170 FITC), Alexa Fluor[®] 488 (sc-377170 AF488), Alexa Fluor[®] 546 (sc-377170 AF546), Alexa Fluor[®] 594 (sc-377170 AF594) or Alexa Fluor[®] 647 (sc-377170 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-377170 AF680) or Alexa Fluor[®] 790 (sc-377170 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor[®] is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

RGL1 (G-2) is recommended for detection of RGL1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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.

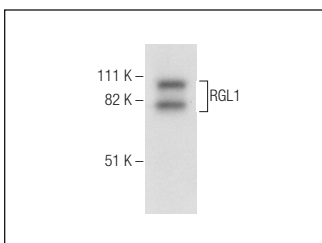
Molecular Weight of RGL1: 87 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201 or human kidney extract: sc-363764.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



RGL1 (G-2): sc-377170. Western blot analysis of RGL1 expression in human kidney tissue extract.

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 for detailed protocols and support products.