

RGL1 (43-Q5): sc-81929

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

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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.
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CHROMOSOMAL LOCATION

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

SOURCE

RGL1 (43-Q5) is a mouse monoclonal antibody raised against recombinant RGL1 of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

RGL1 (43-Q5) 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), immunohistochemistry (including paraffin-embedded sections) (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.

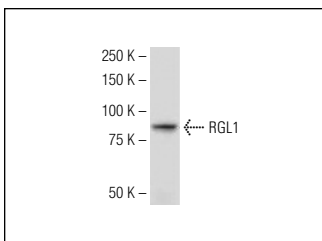
Molecular Weight of RGL1: 87 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201.

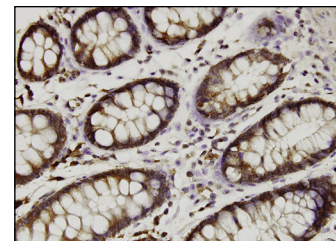
RECOMMENDED SUPPORT REAGENTS

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, 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 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 (43-Q5): sc-81929. Western blot analysis of RGL1 expression in A-431 whole cell lysate.



RGL1 (43-Q5): sc-81929. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human colon tissue showing cytoplasmic localization.

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.