

RAP1GDS1 (L-16): sc-104637

BACKGROUND

RAP1GDS1 (RAP1, GTP-GDP dissociation stimulator 1), also known as SmgGDS or GDS1, is a 607 amino acid protein that contains 5 ARM repeats and functions to stimulate the GDP/GTP exchange reaction of select small GTP-binding proteins. Additionally, RAP1GDS1 is thought to promote aberrant cell growth, playing a role in the development and metastasis of non-small cell lung carcinoma. Multiple isoforms of RAP1GDS1 exist due to alternative splicing events. The gene encoding RAP1GDS1 maps to human chromosome 4, which houses nearly 6% of the human genome and has the largest gene deserts (regions of the genome with no protein encoding genes) of all of the human chromosomes. Defects in some of the genes located on chromosome 4 are associated with Huntington's disease, Ellis-van Creveld syndrome, methylmalonic acidemia and polycystic kidney disease.

REFERENCES

- Mizuno, T., et al. 1991. A stimulatory GDP/GTP exchange protein for Smg p21 is active on the post-translationally processed form of c-Ki-Ras p21 and Rho A p21. *Proc. Natl. Acad. Sci. USA* 88: 6442-6446.
- Riess, O., et al. 1993. Chromosomal assignment of the human SmgGDP dissociation stimulator gene to human chromosome 4q21-q25. *Hum. Genet.* 92: 629-630.
- Shimizu, K., et al. 1996. SMAP, an SmgGDS-associating protein having ARM repeats and phosphorylated by Src tyrosine kinase. *J. Biol. Chem.* 271: 27013-27017.
- Hussey, D.J., et al. 1999. The (4;11)(q21;p15) translocation fuses the NUP98 and RAP1GDS1 genes and is recurrent in T cell acute lymphocytic leukemia. *Blood* 94: 2072-2079.
- Vikis, H.G., et al. 2002. SmgGDS displays differential binding and exchange activity towards different Ras isoforms. *Oncogene* 21: 2425-2432.

CHROMOSOMAL LOCATION

Genetic locus: RAP1GDS1 (human) mapping to 4q23; Rap1gds1 (mouse) mapping to 3 H1.

SOURCE

RAP1GDS1 (L-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of RAP1GDS1 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.

Blocking peptide available for competition studies, sc-104637 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

RAP1GDS1 (L-16) is recommended for detection of RAP1GDS1 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).

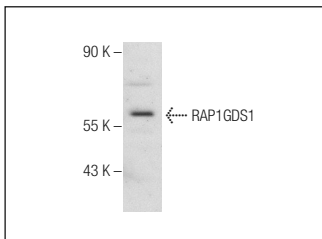
Suitable for use as control antibody for RAP1GDS1 siRNA (h): sc-88897, RAP1GDS1 siRNA (m): sc-106481, RAP1GDS1 shRNA Plasmid (h): sc-88897-SH, RAP1GDS1 shRNA Plasmid (m): sc-106481-SH, RAP1GDS1 shRNA (h) Lentiviral Particles: sc-88897-V and RAP1GDS1 shRNA (m) Lentiviral Particles: sc-106481-V.

Molecular Weight of RAP1GDS1 isoforms: 61/57 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) 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



RAP1GDS1 (L-16): sc-104637. Western blot analysis of RAP1GDS1 expression in 293T whole cell lysate.

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 **RAP1GDS1 (F-1): sc-390003** or **RAP1GDS1 (12): sc-293052**, our highly recommended monoclonal alternatives to RAP1GDS1 (L-16).