

# RGS18 (S-17): sc-48290

## BACKGROUND

The regulators of G protein signaling (RGS) proteins inhibit heterotrimeric G protein signaling. RGS proteins work by functioning as GTPase-activating proteins (which increase the GTPase activity of G protein  $\alpha$  subunits) thereby driving G proteins into their inactive GDP-bound form. RGS18 is a 234 amino acid peptide expressed mainly in megakaryocyte cells, but also in hematopoietic progenitor and myeloerythroid lineage cells. RGS18 expression is upregulated during megakaryocyte differentiation and may play an important role in the mediation of megakaryocyte chemotaxis. Structurally, RGS18 contains phosphorylation sites for casein kinase II, protein kinase C and protein kinase A. RGS18 specifically binds to two  $\alpha$  subunits of the G protein,  $G_{\alpha i}$  and  $G_{\alpha q}$ .

## REFERENCES

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2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607190. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Berthebaud, M., Rivière, C., Jarrier, P., Foudi, A., Zhang, Y., Compagno, D., Galy, A., Vainchenker, W. and Louache, F. 2005. RGS16 is a negative regulator of SDF-1-CXCR4 signaling in megakaryocytes. *Blood* 106: 2962-2968.
4. Kveberg, L., Ryan, J.C., Rolstad, B. and Inngjerdigen, M. 2005. Expression of regulator of G protein signalling proteins in natural killer cells, and their modulation by Ly49A and Ly49D. *Immunology* 115: 358-365.
5. Aldenhoven, J., Chen, Y. and Moran, C. 2006. Assignment of UCK2, ATF3 and RGS18 from human chromosome 1 to porcine chromosomes 4, 9 and 10 with somatic and radiation hybrid panels. *Cytogenet. Genome Res.* 112: 341F.

## CHROMOSOMAL LOCATION

Genetic locus: RGS18 (human) mapping to 1q31.2; Rgs18 (mouse) mapping to 1 F.

## SOURCE

RGS18 (S-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of RGS18 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-48290 P, (100  $\mu$ g 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

RGS18 (S-17) is recommended for detection of RGS18 of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

RGS18 (S-17) is also recommended for detection of RGS18 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for RGS18 siRNA (h): sc-61468, RGS18 siRNA (m): sc-61469, RGS18 shRNA Plasmid (h): sc-61468-SH, RGS18 shRNA Plasmid (m): sc-61469-SH, RGS18 shRNA (h) Lentiviral Particles: sc-61468-V and RGS18 shRNA (m) Lentiviral Particles: sc-61469-V.

Molecular Weight of RGS18: 26 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) 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.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.