

RGS18 (F-5): sc-390908

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 α 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 α subunits of the G protein, $G_{\alpha i}$ and $G_{\alpha q}$.

REFERENCES

1. Yowe, D., et al. 2001. RGS18 is a myeloerythroid lineage-specific regulator of molecule highly expressed in megakaryocytes. *Biochem. J.* 359: 109-118.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607192. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Berthebaud, M., et al. 2005. RGS16 is a negative regulator of SDF-1-CXCR4 signaling in megakaryocytes. *Blood* 106: 2962-2698.
4. Kveberg, L., et al. 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., et al. 2006. Assignment of UCK2, ATF3 and RGS18 from human chromosome 1 to porci 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.

SOURCE

RGS18 (F-5) is a mouse monoclonal antibody raised against amino acids 1-80 mapping at the N-terminus of RGS18 of human origin.

PRODUCT

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

RGS18 (F-5) is available conjugated to agarose (sc-390908 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390908 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390908 PE), fluorescein (sc-390908 FITC), Alexa Fluor® 488 (sc-390908 AF488), Alexa Fluor® 546 (sc-390908 AF546), Alexa Fluor® 594 (sc-390908 AF594) or Alexa Fluor® 647 (sc-390908 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390908 AF680) or Alexa Fluor® 790 (sc-390908 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

RGS18 (F-5) is recommended for detection of RGS18 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 RGS18 siRNA (h): sc-61468, RGS18 shRNA Plasmid (h): sc-61468-SH and RGS18 shRNA (h) Lentiviral Particles: sc-61468-V.

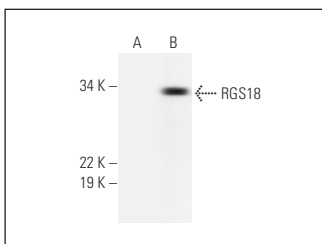
Molecular Weight of RGS18: 26 kDa.

Positive Controls: human RGS18 transfected HEK293T whole cell lysate.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



RGS18 (F-5): sc-390908. Western blot analysis of RGS18 expression in non-transfected (A) and human RGS18 transfected (B) HEK293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Pinto, A.P., et al. 2020. The combination of fasting, acute resistance exercise, and protein ingestion led to different responses of autophagy markers in gastrocnemius and liver samples. *Nutrients* 12 pii: E641.

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.