

RGS13 (G-7): sc-514590

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. RGS13 (regulator of G protein signaling 13) localizes in membrane and nuclear fractions, and is expressed predominantly in tonsil, thymus, lymph node, lung and spleen tissues. Within the lymphoid compartment, highest levels of RGS13 have been found in resting CD19-positive (B cells). Unlike most RGS proteins, RGS13 has no recognizable domain other than the RGS box, but because of its prevalence in the immune system and lung and its ability to inhibit $G_{\alpha q}$, $G_{\alpha i}$ and cAMP generation, the function of RGS13 might be to modulate specific G protein-dependent signal transduction pathways in these regions.

REFERENCES

1. Johnson, E.N. and Druey, K.M. 2002. Functional characterization of the G protein-regulator RGS13. *J. Biol. Chem.* 277: 16768-16774.
2. Shi, G.X., et al. 2002. RGS13 regulates germinal center B lymphocytes responsiveness to CXCL chemokine ligand (CXCL12 and CXCL13). *J. Immunol.* 169: 2507-2515.
3. Sierra, D.A., et al. 2002. Evolution of the regulators of G protein-signaling multigene family in mouse and human. *Genomics* 79: 177-185.
4. 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/>
5. Estes, J.D., et al. 2004. Follicular dendritic cell regulation of CXCR4-mediated germinal center CD4 T cell migration. *J. Immunol.* 173: 6169-6178.
6. Moratz, C., et al. 2004. Regulation of chemokine-induced lymphocyte migration by RGS proteins. *Methods Enzymol.* 389: 15-32.

CHROMOSOMAL LOCATION

Genetic locus: RGS13 (human) mapping to 1q31.2.

SOURCE

RGS13 (G-7) is a mouse monoclonal antibody raised against amino acids 1-135 mapping at the N-terminus of RGS13 of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RGS13 (G-7) is available conjugated to agarose (sc-514590 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514590 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514590 PE), fluorescein (sc-514590 FITC), Alexa Fluor® 488 (sc-514590 AF488), Alexa Fluor® 546 (sc-514590 AF546), Alexa Fluor® 594 (sc-514590 AF594) or Alexa Fluor® 647 (sc-514590 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514590 AF680) or Alexa Fluor® 790 (sc-514590 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

RGS13 (G-7) is recommended for detection of RGS13 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 RGS13 siRNA (h): sc-61464, RGS13 shRNA Plasmid (h): sc-61464-SH and RGS13 shRNA (h) Lentiviral Particles: sc-61464-V.

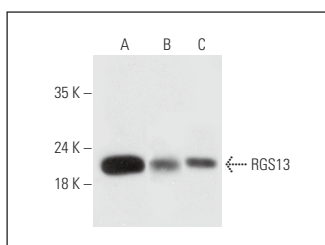
Molecular Weight of RGS13: 19 kDa.

Positive Controls: Raji whole cell lysate: sc-364236, Ramos cell lysate: sc-2216 or GA-10 whole cell lysate: sc-364230.

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



RGS13 (G-7): sc-514590. Western blot analysis of RGS13 expression in Ramos (A), GA-10 (B) and Raji (C) whole cell lysates.

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.