

RGS16 (H-100): sc-30218

BACKGROUND

Regulators of G protein signaling (RGS proteins) are a family of highly diverse, multifunctional signaling proteins that share a conserved 120 amino acid domain (RGS domain). RGS domains bind directly to activated G_{α} subunits and act as GTPase-activating proteins (GAPs) to attenuate and/or modulate hormone and neurotransmitter receptor-initiated signaling by both G_{α} -GTP and $G_{\beta\gamma}$. RGS proteins shorten the lifetime of the activated G protein. RGS16 is expressed at high levels in retina. Overexpression of RGS16 inhibits G protein-coupled mitogenic signal transduction and activation of the mitogen-activated protein kinase (MAPK) signaling cascade. RGS16 enhances the rate of GTP-hydrolysis by transducin, suggesting that RGS16 may play a role in regulating the kinetics of signaling in the phototransduction cascade. The gene which encodes RGS16 maps to human chromosome 1q25.3.

REFERENCES

- Chen, C.K., Wieland, T. and Simon, M.I. 1996. RGS-r, a retinal specific RGS protein, binds an intermediate conformation of transducin and enhances recycling. *Proc. Nat. Acad. Sci. USA* 93: 12885-12889.
- Kardestuncer, T., Wu, H., Lim, A.L. and Neer, E.J. 1998. Cardiac myocytes express mRNA for ten RGS proteins: changes in RGS mRNA expression in ventricular myocytes and cultured atria. *FEBS Lett.* 438: 285-288.

SOURCE

RGS16 (H-100) is a rabbit polyclonal antibody raised against amino acids 103-202 mapping at the C-terminus of RGS16 of human origin.

PRODUCT

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

APPLICATIONS

RGS16 (H-100) is recommended for detection of RGS16 and, to a lesser extent, other RGS family members of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

RGS16 (H-100) is also recommended for detection of RGS16 and, to a lesser extent, other RGS family members in additional species, including equine and canine.

Suitable for use as control antibody for RGS16 siRNA (h): sc-37161, RGS16 siRNA (m): sc-37162, RGS16 shRNA Plasmid (h): sc-37161-SH, RGS16 shRNA Plasmid (m): sc-37162-SH, RGS16 shRNA (h) Lentiviral Particles: sc-37161-V and RGS16 shRNA (m) Lentiviral Particles: sc-37162-V.

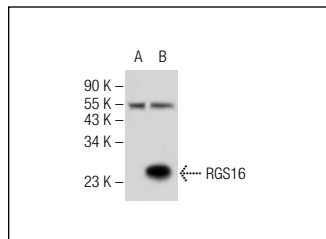
Molecular Weight of RGS16: 23 kDa.

Positive Controls: Y79 cell lysate: sc-2240 or RGS16 (m): 293T Lysate: sc-123100.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



RGS16 (H-100): sc-30218. Western blot analysis of RGS16 expression in non-transfected: sc-117752 (A) and mouse RGS16 transfected: sc-123100 (B) 293T 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 or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **RGS16 (A-9): sc-166083** or **RGS16 (F-9): sc-398120**, our highly recommended monoclonal alternatives to RGS16 (H-100).