

RGS11 (E-3): sc-515412

BACKGROUND

Heterotrimeric G proteins function to relay information from cell surface receptors to various intracellular effectors. G proteins comprise α , β and γ subunits, and following activation the α subunit binds GTP and dissociates from the $\beta\gamma$ complex. A large group of proteins have been identified as GTPase-activating proteins (GAPs), including the RGS (regulator of G protein signaling) family, which serve to deactivate specific G_{α} isoforms by increasing the rate at which they convert GTP to GDP. A subfamily of RGS proteins expressed in the central nervous system contain, in addition to the highly conserved RGS domain, a characteristic GGL domain, or G protein γ subunit-like domain, which mediates binding to $G_{\beta 5}$ subunits. This subfamily, which includes RGS6, RGS7, RGS9 and RGS11, associates with $G_{\beta 5}$ to form active GAP complexes that are predominantly localized to the cytosol. RGS/ $\beta 5$ complexes preferentially target G_{α} subunit for hydrolysis and inhibit $G_{\beta 1\gamma 2}$ -mediated activation of phospholipase C.

REFERENCES

- Conklin, B.R. and Bourne, H.R. 1993. Structural elements of G_{α} subunits that interact with $G_{\beta\gamma}$ receptors, and effectors. *Cell* 73: 631-641.
- Snow, B.E., et al. 1998. A G protein γ subunit-like domain shared between RGS11 and other RGS proteins specifies binding to $G_{\beta 5}$ subunits. *Proc. Natl. Acad. Sci. USA* 95: 13307-13312.
- Thomas, E.A., et al. 1998. RGS9: a regulator of G-protein signalling with specific expression in rat and mouse striatum. *J. Neurosci. Res.* 52: 118-124.
- Guan, K.L. and Han, M. 1999. A G-protein signaling network mediated by an RGS protein. *Genes Dev.* 13: 1763-1767.

CHROMOSOMAL LOCATION

Genetic locus: RGS11 (human) mapping to 16p13.3; Rgs11 (mouse) mapping to 17 A3.3.

SOURCE

RGS11 (E-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 436-457 at the C-terminus of RGS11 of human origin.

PRODUCT

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

RGS11 (E-3) is available conjugated to agarose (sc-515412 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515412 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515412 PE), fluorescein (sc-515412 FITC), Alexa Fluor® 488 (sc-515412 AF488), Alexa Fluor® 546 (sc-515412 AF546), Alexa Fluor® 594 (sc-515412 AF594) or Alexa Fluor® 647 (sc-515412 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515412 AF680) or Alexa Fluor® 790 (sc-515412 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-515412 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

RGS11 (E-3) is recommended for detection of RGS11 of mouse, rat and 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 RGS11 siRNA (h): sc-40669, RGS11 siRNA (m): sc-40670, RGS11 shRNA Plasmid (h): sc-40669-SH, RGS11 shRNA Plasmid (m): sc-40670-SH, RGS11 shRNA (h) Lentiviral Particles: sc-40669-V and RGS11 shRNA (m) Lentiviral Particles: sc-40670-V.

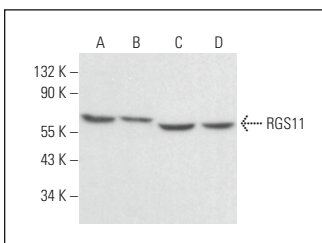
Molecular Weight of RGS11: 50 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, ARPE-19 whole cell lysate: sc-364357 or ZR-75-1 cell lysate: sc-2241.

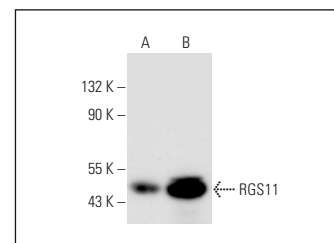
RECOMMENDED SUPPORT REAGENTS

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



RGS11 (E-3): sc-515412. Western blot analysis of RGS11 expression in P19 (A), NIH/3T3 (B), BC₃H1 (C) and Sol8 (D) whole cell lysates.



RGS11 (E-3): sc-515412. Western blot analysis of RGS11 expression in ARPE-19 (A) and ZR-75-1 (B) 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.

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