

# p-RGS9-1 (A4): sc-18842

## BACKGROUND

Heterotrimeric G proteins function to relay information from cell surface receptors to various intracellular effectors. G proteins comprise  $\alpha$ ,  $\beta$  and  $\gamma$  subunits and, following activation, the  $\alpha$  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  $G_{\alpha}$  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  $\gamma$  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/ $G_{\beta 5}$  complexes preferentially target  $G_{\alpha o}$  subunit for hydrolysis and inhibit  $G_{\beta 1}/G_{\gamma 2}$ -mediated activation of phospholipase C.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: *Rgs9* (mouse) mapping to 11 E1.

## SOURCE

p-RGS9-1 (A4) is a mouse monoclonal antibody raised against a short amino acid sequence containing Ser 475 phosphorylated RGS9-1 of mouse origin.

## RESEARCH USE

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

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

p-RGS9-1 (A4) is available conjugated to agarose (sc-18842 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-18842 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-18842 PE), fluorescein (sc-18842 FITC), Alexa Fluor<sup>®</sup> 488 (sc-18842 AF488), Alexa Fluor<sup>®</sup> 546 (sc-18842 AF546), Alexa Fluor<sup>®</sup> 594 (sc-18842 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-18842 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-18842 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-18842 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

p-RGS9-1 (A4) is recommended for detection of Ser 475 phosphorylated RGS9-1 of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000); non cross-reactive with RGS9-2.

Suitable for use as control antibody for RGS9 siRNA (m): sc-36413, RGS9 shRNA Plasmid (m): sc-36413-SH and RGS9 shRNA (m) Lentiviral Particles: sc-36413-V.

Molecular Weight of p-RGS9-1: 55 kDa.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:  
 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent), Lambda Phosphatase: sc-200312A and Western Blotting Luminol Reagent: sc-2048.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

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