

# RGS5 (N-14): sc-28491

## 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  $G_{\alpha}$  subunits and act as GTPase-activating proteins (GAPs) to attenuate and/or modulate hormone and neurotransmitter receptor-initiated signaling by both  $G_{\alpha}$ -GTP and  $G_{\beta\gamma}$ . RGS proteins shorten the lifetime of activated G proteins. Vascular endothelial cells express the RGS protein RGS5, where it correlates with capillary morphogenesis, thus rendering it a candidate gene involved in capillary growth, angiogenesis, and also potentially the pathophysiology of stroke.

## REFERENCES

1. Kardstuner, T., et al. 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.
2. Hepler, J.R. 1999. Emerging roles for RGS proteins in cell signalling. *Trends Pharmacol. Sci.* 20: 376-382.

## CHROMOSOMAL LOCATION

Genetic locus: RGS5 (human) mapping to 1q23.3; Rgs5 (mouse) mapping to 1 H3.

## SOURCE

RGS5 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of RGS5 of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-28491 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

RGS5 (N-14) is recommended for detection of RGS5 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

RGS5 (N-14) is also recommended for detection of RGS5 in additional species, including equine and canine.

Suitable for use as control antibody for RGS5 siRNA (h): sc-45814, RGS5 siRNA (m): sc-45815, RGS5 shRNA Plasmid (h): sc-45814-SH, RGS5 shRNA Plasmid (m): sc-45815-SH, RGS5 shRNA (h) Lentiviral Particles: sc-45814-V and RGS5 shRNA (m) Lentiviral Particles: sc-45815-V.

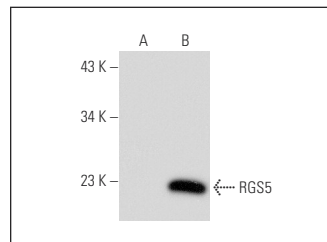
Molecular Weight of RGS5: 25 kDa.

Positive Controls: RGS5 (m2): 293T Lysate: sc-123108.

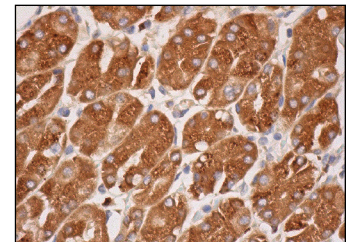
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



RGS5 (N-14): sc-28491. Western blot analysis of RGS5 expression in non-transfected: sc-117752 (A) and mouse RGS5 transfected: sc-123108 (B) 293T whole cell lysates.



RGS5 (N-14): sc-28491. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lower stomach tissue showing cytoplasmic staining of glandular cells.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.


 MONOS  
Satisfaction  
Guaranteed

Try **RGS5 (B-4): sc-514184** or **RGS5 (H-1): sc-390245**, our highly recommended monoclonal alternatives to RGS5 (N-14).