

RGS7 (C-19): sc-8139



The Power to Question

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 $G_{\alpha 0}$ subunit for hydrolysis and inhibit $G_{\beta 1\gamma 2}$ -mediated activation of phospholipase C.

CHROMOSOMAL LOCATION

Genetic locus: *Rgs7* (mouse) mapping to 1 H3.

SOURCE

RGS7 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of RGS7 of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-8139 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

RGS7 (C-19) is recommended for detection of RGS7 of mouse and rat 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).

Suitable for use as control antibody for RGS7 siRNA (m): sc-40668, RGS7 shRNA Plasmid (m): sc-40668-SH and RGS7 shRNA (m) Lentiviral Particles: sc-40668-V.

Molecular Weight of RGS7: 56 kDa.

Positive Controls: mouse cerebellum extract: sc-2403 or mouse brain extract: sc-2253.

STORAGE

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

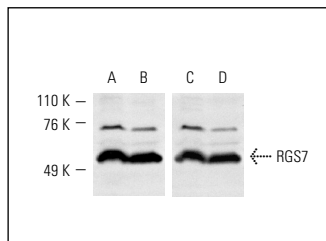
PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

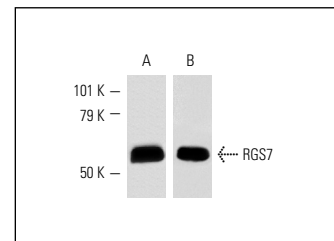
RESEARCH USE

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

DATA



Western blot analysis of RGS7 expression in mouse brain (A, C) and mouse cerebellum (B, D) extracts. Antibodies tested include RGS7 (C-19): sc-8139 (A, B) and RGS6/7 (M-19): sc-8141 (C, D).



Western blot analysis of bovine recombinant RGS7 (A, B). Antibodies tested include RGS6/7 (M-19): sc-8141 (A) and RGS7 (C-19): sc-8139 (B).

SELECT PRODUCT CITATIONS

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Try **RGS6/7 (F-10): sc-271643** or **RGS6/7 (B-10): sc-398222**, our highly recommended monoclonal alternatives to RGS7 (C-19).