

RGS10 (C-20): sc-6206

BACKGROUND

Heterotrimeric G proteins function to relay information from cell surface receptors to intracellular effectors. In mammals, G protein α , β and γ polypeptides are encoded by at least 16, 4 and 7 genes, respectively. Most interest in G proteins has been focused on their α subunits, since these proteins bind and hydrolyze GTP and most obviously regulate the activity of the best studied effectors. Four G_{α} GTPase-activating proteins (GAPs) have been identified and are designated RGS1 (regulator of G protein signaling), RGS4, RGS10 and GAIP (G_{α} -interacting protein). Each of these proteins has been shown to deactivate specific G_{α} isoforms by increasing the rate at which they convert GTP to GDP. RGS1, RGS4 and GAIP bind tightly to and exhibit GAP activity towards $G_{\alpha i}$, $G_{\alpha o}$ and $G_{\alpha t}$, but not $G_{\alpha s}$. RGS10 increases the GTP hydrolytic activity of several members of the $G_{\alpha i}$ subfamily including $G_{\alpha i-3}$, $G_{\alpha z}$, and $G_{\alpha o}$.

CHROMOSOMAL LOCATION

Genetic locus: RGS10 (human) mapping to 10q26.11; Rgs10 (mouse) mapping to 7 F3.

SOURCE

RGS10 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of RGS10 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.

RGS10 (C-20) is available conjugated to agarose (sc-6206 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP.

Blocking peptide available for competition studies, sc-6206 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

RGS10 (C-20) is recommended for detection of RGS10 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), 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).

RGS10 (C-20) is also recommended for detection of RGS10 in additional species, including bovine and porcine.

Suitable for use as control antibody for RGS10 siRNA (h): sc-36410, RGS10 siRNA (m): sc-36411, RGS10 shRNA Plasmid (h): sc-36410-SH, RGS10 shRNA Plasmid (m): sc-36411-SH, RGS10 shRNA (h) Lentiviral Particles: sc-36410-V and RGS10 shRNA (m) Lentiviral Particles: sc-36411-V.

Molecular Weight of RGS10: 20 kDa.

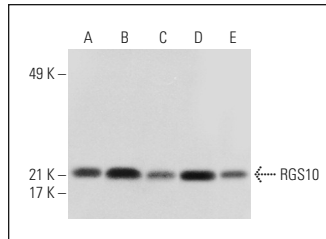
STORAGE

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

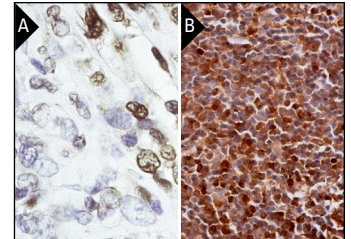
RESEARCH USE

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

DATA



RGS10 (C-20): sc-6206. Western blot analysis of RGS10 expression in BJAB (A), CCRF-CEM (B), Ramos (C), Jurkat (D) and Y79 (E) whole cell lysates.



RGS10 (C-20): sc-6206. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human lymphoma at high magnification showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human lymph node tissue showing cytoplasmic and nuclear staining of cells in germinal and non-germinal centers (B).

SELECT PRODUCT CITATIONS

- Castro-Fernandez, C., et al. 2002. Regulation of RGS3 and RGS10 palmitoylation by GnRH. *Endocrinology* 143: 1310-1317.
- Garzon, J., et al. 2005. Morphine alters the selective association between μ -opioid receptors and specific RGS proteins in mouse periaqueductal gray matter. *Neuropharmacology* 48: 853-868.
- Lee, J.K., et al. 2008. Regulator of G protein signaling 10 promotes dopaminergic neuron survival via regulation of the microglial inflammatory response. *J. Neurosci.* 28: 8517-8528.
- Rivero, G., et al. 2010. Characterization of regulators of G protein signaling RGS4 and RGS10 proteins in the postmortem human brain. *Neurochem. Int.* 57: 722-729.
- García-Bernal, D., et al. 2011. RGS10 restricts upregulation by chemokines of T cell adhesion mediated by $\alpha 4\beta 1$ and $\alpha L\beta 2$ integrins. *J. Immunol.* 187: 1264-1272.
- Rivero, G., et al. 2012. Differential regulation of RGS proteins in the prefrontal cortex of short- and long-term human opiate abusers. *Neuropharmacology* 62: 1044-1051.
- Ma, P., et al. 2012. A newly identified complex of spinophilin and the tyrosine phosphatase, SHP-1, modulates platelet activation by regulating G protein-dependent signaling. *Blood* 119: 1935-1945.
- Rivero, G., et al. 2013. Brain RGS4 and RGS10 protein expression in schizophrenia and depression. Effect of drug treatment. *Psychopharmacology* 226: 177-188.

MONOS
Satisfaction
Guaranteed

Try **RGS10 (A-8): sc-46679**, our highly recommended monoclonal alternative to RGS10 (C-20).