

Rho GAP p190-B (54): sc-136187

BACKGROUND

Rho GAP p190, also designated ARHGAP5, Rho GTPase activating protein 5 (Rho GAP 5), p190-B and Ras GAP-associated p105 protein, negatively regulates Rho GTPases by stimulating the hydrolysis of bound GTP. Two transcript variants encoding different isoforms have been found for the human gene. Rho GAP p190 localizes diffusely in the cytoplasm, and in fibrillar patterns that co-localize with $\alpha 5/\beta 1$ integrin receptor in normal human foreskin fibroblasts, RD muscle cells and HT-1080 cells. Rho GAP p190 interacts with transmembrane plexin receptors and mediates semaphorin signalling to the Actin cytoskeleton, guiding cell migration and axon extension. Plexin activation leads to the disassembly of integrin-based focal adhesive structures and to Actin cytoskeleton remodelling and inhibition of cell migration. SHP-2-dependent dephosphorylation of Rho GAP p190 leads to the activation of Rho A in myoblasts, supporting the idea that myogenesis is under the influence of SHP-2 activity on the Rho GAP p190/Rho A pathway.

REFERENCES

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6. Wolf, R.M., et al. 2003. Rho GAP p190 can act to inhibit PDGF-induced gliomas in mice: a putative tumor suppressor encoded on human chromosome 19q13.3. *Genes Dev.* 17: 476-487.
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CHROMOSOMAL LOCATION

Genetic locus: ARHGAP5 (human) mapping to 14q12; Arhgap5 (mouse) mapping to 12 C1.

SOURCE

Rho GAP p190-B (54) is a mouse monoclonal antibody raised against amino acids 1102-1214 of Rho GAP p190-B of human origin.

PRODUCT

Each vial contains 50 μ g IgG₁ in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Rho GAP p190-B (54) is recommended for detection of Rho GAP p190-B of mouse, rat, human and canine origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Rho GAP p190-B siRNA (h): sc-44077, Rho GAP p190-B siRNA (m): sc-44986, Rho GAP p190-B shRNA Plasmid (h): sc-44077-SH, Rho GAP p190-B shRNA Plasmid (m): sc-44986-SH, Rho GAP p190-B shRNA (h) Lentiviral Particles: sc-44077-V and Rho GAP p190-B shRNA (m) Lentiviral Particles: sc-44986-V.

Molecular Weight of Rho GAP p190-B: 190 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. Not for resale.

PROTOCOLS

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