

ARHGAP18 (C-16): sc-244993

BACKGROUND

GTPase-activating proteins (GAPs) accelerate the intrinsic rate of GTP hydrolysis of Ras-related proteins, resulting in downregulation of their active form. ARHGAP18 (Rho GTPase activating protein 18), also known as MacGAP, is a 663 amino acid protein that localizes to the nucleus and contains one Rho-GAP domain. Found to interact with MPP6, ARHGAP18 functions as a negative regulator of Rho-type GTPases, specifically catalyzing the conversion of the target GTPase to an inactive, GDP-bound state. Via its catalytic activity, ARHGAP18 is involved in cell proliferation, migration and differentiation, as well as in actin remodeling. ARHGAP18 exists as two alternatively spliced isoforms and is encoded by a gene which maps to human chromosome 6.

REFERENCES

1. Lehner, B. and Sanderson, C.M. 2004. A protein interaction framework for human mRNA degradation. *Genome Res.* 14: 1315-1323.
2. Wennerberg, K. and Der, C.J. 2004. Rho-family GTPases: it's not only Rac and Rho (and I like it). *J. Cell. Sci.* 117: 1301-1312.
3. Kandpal, R.P. 2006. Rho GTPase activating proteins in cancer phenotypes. *Curr. Protein Pept. Sci.* 7: 355-365.
4. Lv, L., Xu, J., Zhao, S., Chen, C., Zhao, X., Gu, S., Ji, C., Xie, Y. and Mao, Y. 2007. Sequence analysis of a human RhoGAP domain-containing gene and characterization of its expression in human multiple tissues. *DNA Seq.* 18: 184-189.
5. Cronin, S., Tomik, B., Bradley, D.G., Slowik, A. and Hardiman, O. 2009. Screening for replication of genome-wide SNP associations in sporadic ALS. *Eur. J. Hum. Genet.* 17: 213-218.

CHROMOSOMAL LOCATION

Genetic locus: ARHGAP18 (human) mapping to 6q22.33; Arhgap18 (mouse) mapping to 10 A4.

SOURCE

ARHGAP18 (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of ARHGAP18 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-244993 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

ARHGAP18 (C-16) is recommended for detection of ARHGAP18 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution zarange 1:100-1:1000), 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); non cross-reactive with other ARHGAP family members.

ARHGAP18 (C-16) is also recommended for detection of ARHGAP18 in additional species, including equine and avian.

Suitable for use as control antibody for ARHGAP18 siRNA (h): sc-95563, ARHGAP18 siRNA (m): sc-141205, ARHGAP18 shRNA Plasmid (h): sc-95563-SH, ARHGAP18 shRNA Plasmid (m): sc-141205-SH, ARHGAP18 shRNA (h) Lentiviral Particles: sc-95563-V and ARHGAP18 shRNA (m) Lentiviral Particles: sc-141205-V.

Molecular Weight of ARHGAP18: 75 kDa.

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) 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.

RESEARCH USE

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