

ARHGAP30 (N-12): sc-138135

BACKGROUND

GTPase-activating proteins (GAPs) accelerate the intrinsic rate of GTP hydrolysis of Ras-related proteins, resulting in downregulation of their active form. ARHGAP30 (Rho GTPase activating protein 30), also known as Rho-type GTPase-activating protein 30, is a 1,101 amino acid protein that contains one Rho-GAP domain and exists as 4 alternatively spliced isoforms. Conserved in chimpanzee, canine, bovine, mouse and rat, ARHGAP30 is among the most neurite-enriched GAPs, which also includes ARHGAP21, FBNP2 and Bcr). One of four single-nucleotide polymorphisms (SNPs) at the USF-1 gene locus, rs2774279, which is located in the promoter area of the USF-1 gene, which is in turn located within its flanking gene ARHGAP30, is linked to low-density lipoprotein cholesterol levels, incident type 2 diabetes mellitus and increased cardiovascular risk.

REFERENCES

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2. Auro, K., et al. 2008. USF1 gene variants contribute to metabolic traits in men in a longitudinal 32-year follow-up study. *Diabetologia* 51: 464-472.
3. Holzapfel, C., et al. 2008. Genetic variants in the USF1 gene are associated with low-density lipoprotein cholesterol levels and incident type 2 diabetes mellitus in women: results from the MONICA/KORA Augsburg case-cohort study, 1984-2002. *Eur. J. Endocrinol.* 159: 407-416.
4. Ong, K.L., et al. 2008. Association of F11 receptor gene polymorphisms with central obesity and blood pressure. *J. Intern. Med.* 263: 322-332.
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6. Singmann, P., et al. 2009. Gene-gene interaction between APOA5 and USF1: two candidate genes for the metabolic syndrome. *Obes. Facts* 2: 235-242.
7. Wu, S., et al. 2010. Upstream transcription factor 1 influences plasma lipid and metabolic traits in mice. *Hum. Mol. Genet.* 19: 597-608.

CHROMOSOMAL LOCATION

Genetic locus: ARHGAP30 (human) mapping to 1q23.3; Arhgap30 (mouse) mapping to 1 H3.

SOURCE

ARHGAP30 (N-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of ARHGAP30 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-138135 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ARHGAP30 (N-12) is recommended for detection of ARHGAP30 isoforms 1, 2 and 4 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other ARHGAP family members or ARHGAP30 isoform 3.

ARHGAP30 (N-12) is also recommended for detection of ARHGAP30 isoforms 1, 2 and 4 in additional species, including bovine.

Suitable for use as control antibody for ARHGAP30 siRNA (h): sc-78766, ARHGAP30 siRNA (m): sc-141216, ARHGAP30 shRNA Plasmid (h): sc-78766-SH, ARHGAP30 shRNA Plasmid (m): sc-141216-SH, ARHGAP30 shRNA (h) Lentiviral Particles: sc-78766-V and ARHGAP30 shRNA (m) Lentiviral Particles: sc-141216-V.

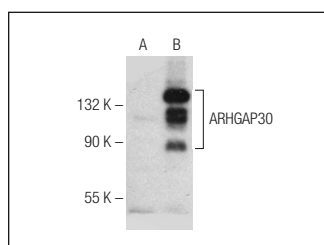
Molecular Weight of ARHGAP30 isoforms 1/2/3/4: 119/96/101/28 kDa.

Positive Controls: ARHGAP30 (h): 293T Lysate: sc-116472.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



ARHGAP30 (N-12): sc-138135. Western blot analysis of ARHGAP30 expression in non-transfected: sc-117752 (A) and human ARHGAP30 transfected: sc-116472 (B) 293T whole cell lysates.

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.