

# ARHGAP1 (C-12): sc-109199

## BACKGROUND

GTPase-activating proteins (GAPs) accelerate the intrinsic rate of GTP hydrolysis of Ras-related proteins, resulting in downregulation of their active form. ARHGAP1 (Rho GTPase activating protein 1), also known as CDC42GAP or Rho GAP1, is a 439 amino acid protein that localizes to the cytoplasm and contains one Rho GAP domain and one CRAL-TRIO domain. Expressed ubiquitously, ARHGAP1 exists in a complex with several other proteins, including eIF4A1 and Exportin 7, and functions as a GTPase activator for Rho, Rac and Cdc42 proteins, effectively converting them to an inactive GDP-bound state. The gene encoding ARHGAP1 maps to human chromosome 11, which houses over 1,400 genes and comprises nearly 4% of the human genome. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are associated with defects in genes that maps to chromosome 11.

## REFERENCES

- Garrett, M.D., et al. 1991. Purification and N-terminal sequence of the p21Rho GTPase-activating protein, Rho GAP. *Biochem. J.* 276: 833-836.
- Diekmann, D., et al. 1991. Bcr encodes a GTPase-activating protein for p21Rac. *Nature* 351: 400-402.

## CHROMOSOMAL LOCATION

Genetic locus: ARHGAP1 (human) mapping to 11p11.2; Arhgap1 (mouse) mapping to 2 E1.

## SOURCE

ARHGAP1 (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of ARHGAP1 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-109199 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

ARHGAP1 (C-12) is recommended for detection of ARHGAP1 of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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 ARHGAP1 siRNA (h): sc-96477, ARHGAP1 siRNA (m): sc-141199, ARHGAP1 shRNA Plasmid (h): sc-96477-SH, ARHGAP1 shRNA Plasmid (m): sc-141199-SH, ARHGAP1 shRNA (h) Lentiviral Particles: sc-96477-V and ARHGAP1 shRNA (m) Lentiviral Particles: sc-141199-V.

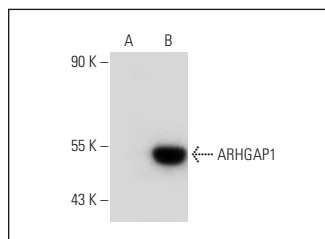
Molecular Weight of ARHGAP1: 50 kDa.

Positive Controls: ARHGAP1 (h): 293T Lysate: sc-172064.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



ARHGAP1 (C-12): sc-109199. Western blot analysis of ARHGAP1 expression in non-transfected: sc-117752 (A) and human ARHGAP1 transfected: sc-172064 (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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.