

# ARHGAP19 (G-13): sc-104814

## BACKGROUND

GTPase-activating proteins (GAPs) accelerate the intrinsic rate of GTP hydrolysis of Ras-related proteins, resulting in downregulation of their active form. ARHGAP19 (Rho GTPase activating protein 19) is a 494 amino acid protein that localizes to the nucleus and contains one Rho-GAP domain. Strongly expressed in fetal liver, lung, brain, heart, kidney and pancreas and present at lower levels in adult ovary, spleen and thymus, ARHGAP19 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, ARHGAP19 is involved in cell proliferation, migration and differentiation, as well as in Actin remodeling. ARHGAP19 exists as multiple alternatively spliced isoforms and is encoded by a gene which maps to human chromosome 10.

## REFERENCES

1. Katoh, Y. and Katoh, M. 2004. Identification and characterization of ARHGAP27 gene in silico. *Int. J. Mol. Med.* 14: 943-947.
2. Katoh, M. and Katoh, M. 2004. Characterization of human ARHGAP10 gene in silico. *Int. J. Oncol.* 25: 1201-1206.
3. 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.
4. Kandpal, R.P. 2006. Rho GTPase activating proteins in cancer phenotypes. *Curr. Protein Pept. Sci.* 7: 355-365.
5. 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.
6. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 611587. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## CHROMOSOMAL LOCATION

Genetic locus: ARHGAP19 (human) mapping to 10q24.1; Arhgap19 (mouse) mapping to 19 C3.

## SOURCE

ARHGAP19 (G-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ARHGAP19 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-104814 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.

## APPLICATIONS

ARHGAP19 (G-13) is recommended for detection of ARHGAP19 of mouse, rat 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); non cross-reactive with ARHGAP19-4.

ARHGAP19 (G-13) is also recommended for detection of ARHGAP19 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for ARHGAP19 siRNA (h): sc-90725, ARHGAP19 siRNA (m): sc-141206, ARHGAP19 shRNA Plasmid (h): sc-90725-SH, ARHGAP19 shRNA Plasmid (m): sc-141206-SH, ARHGAP19 shRNA (h) Lentiviral Particles: sc-90725-V and ARHGAP19 shRNA (m) Lentiviral Particles: sc-141206-V.

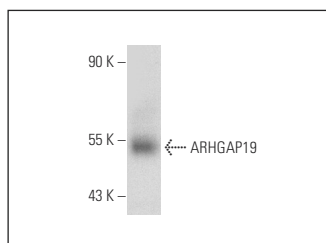
Molecular Weight of ARHGAP19: 56 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209.

## 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



ARHGAP19 (G-13): sc-104814. Western blot analysis of ARHGAP19 expression in HL-60 whole cell lysate.

## RESEARCH USE

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

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Try **ARHGAP19 (B-11): sc-398428** or **ARHGAP19 (B-5): sc-514960**, our highly recommended monoclonal alternatives to ARHGAP19 (G-13).