

# ARHGAP19 (B-5): sc-514960

## 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 (B-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 158-180 within an internal region of ARHGAP19 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-514960 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## RESEARCH USE

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

## APPLICATIONS

ARHGAP19 (B-5) is recommended for detection of ARHGAP19 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 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.

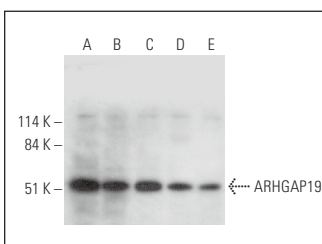
Molecular Weight of ARHGAP19: 56 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, Hep G2 cell lysate: sc-2227 or T-47D cell lysate: sc-2293.

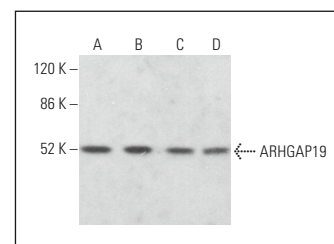
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



ARHGAP19 (B-5): sc-514960. Western blot analysis of ARHGAP19 expression in Hep G2 (A), HL-60 (B), T-47D (C), PANC-1 (D) and FHS 173We (E) whole cell lysates.



ARHGAP19 (B-5): sc-514960. Western blot analysis of ARHGAP19 expression in Jurkat (A), Daudi (B), 3T3-L1 (C) and KNRK (D) 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.

## PROTOCOLS

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