

ARHGAP19 (B-11): sc-398428

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.

CHROMOSOMAL LOCATION

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

SOURCE

ARHGAP19 (B-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 388-401 within an internal region of ARHGAP19 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ARHGAP19 (B-11) is available conjugated to agarose (sc-398428 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398428 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398428 PE), fluorescein (sc-398428 FITC), Alexa Fluor® 488 (sc-398428 AF488), Alexa Fluor® 546 (sc-398428 AF546), Alexa Fluor® 594 (sc-398428 AF594) or Alexa Fluor® 647 (sc-398428 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398428 AF680) or Alexa Fluor® 790 (sc-398428 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398428 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-11) 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.

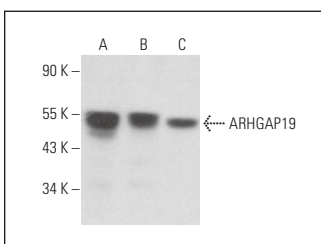
Molecular Weight of ARHGAP19: 56 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, HL-60 whole cell lysate: sc-2209 or Neuro-2A whole cell lysate: sc-364185.

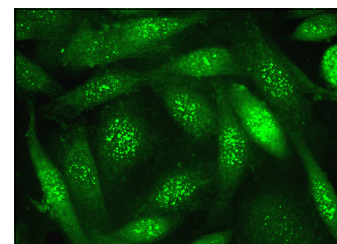
RECOMMENDED SUPPORT REAGENTS

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-11): sc-398428. Western blot analysis of ARHGAP19 expression in Jurkat (A), HL-60 (B) and Neuro-2A (C) whole cell lysates.



ARHGAP19 (B-11): sc-398428. Immunofluorescence staining of formalin-fixed SW480 cells showing nuclear and cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Liang, J., et al. 2021. Regulation of ARHGAP19 in the endometrial epithelium: a possible role in the establishment of uterine receptivity. *Reprod. Biol. Endocrinol.* 19: 2.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

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