

# ARHGAP29 (L-12): sc-161357

## BACKGROUND

GTPase-activating proteins (GAPs) accelerate the intrinsic rate of GTP hydrolysis of Ras-related proteins, resulting in down regulation of their active form. ARHGAP29 (Rho GTPase activating protein 29), also known as PARG1, is a 1,261 amino acid protein that is widely expressed and contains a phorbol-ester/DAG-type zinc finger and a Rho-GAP domain. There is high expression of ARHGAP29 in skeletal muscle and heart, intermediate expression in placenta, liver and pancreas, and weak expression in brain, lung and kidney. As a GTPase activator, ARHGAP29 converts Rho-type GTPases to an inactive GDP-bound state and has strong activity toward Rho A, and weaker activity toward Rac 1 and Cdc42. Also considered a specific effector of Rap 2A to regulate Rho, ARHGAP29 is strongly down-regulated in mantle-cell lymphomas and up-regulated in migrating glioma cells. ARHGAP29 exists as two alternatively spliced isoforms.

## REFERENCES

1. Saras, J., et al. 1997. A novel GTPase-activating protein for Rho interacts with a PDZ domain of the protein-tyrosine phosphatase PTPL1. *J. Biol. Chem.* 272: 24333-24338.
2. Bassères, D.S., et al. 2002. ARHGAP10, a novel human gene coding for a potentially cytoskeletal Rho-GTPase activating protein. *Biochem. Biophys. Res. Commun.* 294: 579-585.
3. Myagmar, B.E., et al. 2005. PARG1, a protein-tyrosine phosphatase-associated RhoGAP, as a putative Rap2 effector. *Biochem. Biophys. Res. Commun.* 329: 1046-1052.
4. Meyer-Ficca, M.L., et al. 2005. Poly(ADP-ribose) polymerases: managing genome stability. *Int. J. Biochem. Cell Biol.* 37: 920-926.
5. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 610496. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
6. Ripperger, T., et al. 2007. Promoter methylation of PARG1, a novel candidate tumor suppressor gene in mantle-cell lymphomas. *Haematologica* 92: 460-468.

## CHROMOSOMAL LOCATION

Genetic locus: ARHGAP29 (human) mapping to 1p22.1; Arhgap29 (mouse) mapping to 3 G1.

## SOURCE

ARHGAP29 (L-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ARHGAP29 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-161357 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

ARHGAP29 (L-12) is recommended for detection of ARHGAP29 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 other ARHGAP family members.

Suitable for use as control antibody for ARHGAP29 siRNA (h): sc-78941, ARHGAP29 siRNA (m): sc-141215, ARHGAP29 shRNA Plasmid (h): sc-78941-SH, ARHGAP29 shRNA Plasmid (m): sc-141215-SH, ARHGAP29 shRNA (h) Lentiviral Particles: sc-78941-V and ARHGAP29 shRNA (m) Lentiviral Particles: sc-141215-V.

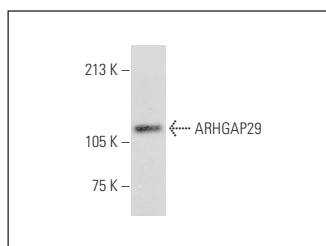
Molecular Weight of ARHGAP29: 142 kDa.

Positive Controls: rat heart extract: sc-2393.

## 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



ARHGAP29 (L-12): sc-161357. Western blot analysis of ARHGAP29 expression in rat heart tissue extract.

## 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.