

# ARHGAP9 (H-120): sc-135084

## BACKGROUND

Proteins that contain a Rho GAP (Rho GTPase activating protein) domain inactivate regulators of the Actin cytoskeleton by catalyzing the hydrolysis of GTP that is bound to Rho, Rac and/or Cdc42. ARHGAP9 (Rho GTPase-activating protein 9) is a 750 amino acid protein that contains a Rho-GAP domain and functions in the activation of Rho-type GTPases by converting them to an inactive GDP-bound state. Predominantly expressed in spleen, thymus and peripheral blood lymphocytes, ARHGAP9 has preferential GAP activity toward Cdc42 and Rac 1, and less activity toward Rho A. Japanese individuals with acetylcholine-induced coronary artery spasm have been found to have a non-synonymous single nucleotide polymorphism (SNP) in the ARHGAP9 gene, which leads to a weaker inhibitory effect on cell adhesion, spreading and migration than the wild-type protein. This suggests that SNPs within the ARHGAP9 protein play a critical role in the infiltration of hematopoietic cells into the endothelium and inflammation leading to endothelium dysfunction. There are three isoforms of ARHGAP9 that are produced as a result of alternative splicing events.

## REFERENCES

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## RESEARCH USE

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

## CHROMOSOMAL LOCATION

Genetic locus: ARHGAP9 (human) mapping to 12q13.3.

## SOURCE

ARHGAP9 (H-120) is a rabbit polyclonal antibody raised against amino acids 416-535 mapping within an internal region of ARHGAP9 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.

## APPLICATIONS

ARHGAP9 (H-120) is recommended for detection of ARHGAP9 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).

Suitable for use as control antibody for ARHGAP9 siRNA (h): sc-95933, ARHGAP9 siRNA (m): sc-141220, ARHGAP9 shRNA Plasmid (h): sc-95933-SH, ARHGAP9 shRNA Plasmid (m): sc-141220-SH, ARHGAP9 shRNA (h) Lentiviral Particles: sc-95933-V and ARHGAP9 shRNA (m) Lentiviral Particles: sc-141220-V.

Molecular Weight of ARHGAP9: 83 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## 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) or our catalog for detailed protocols and support products.