

Rac GAP1 (N-19): sc-82735

BACKGROUND

A large number of low molecular weight, GTP binding proteins of the Ras superfamily have been identified. These proteins regulate many fundamental processes in all eukaryotic cells such as growth, vesicle traffic and cytoskeletal organization. GTPase-activating proteins (GAPs) accelerate the intrinsic rate of GTP hydrolysis of Ras-related proteins, resulting in downregulation of their active form. Through this function, GAPs negatively regulate Ras-mediated signaling. Rac GAP1 (Rac GTPase activating protein 1), also known as MgcRacGAP (male germ cell Rac GTPase activating protein), ID-GAP or HsCYK-4, functions as a GAP and exhibits strong activity towards Rac 1 and Cdc42. Highly expressed in thymus, placenta and testis with lower levels in spleen and peripheral blood lymphocytes, Rac GAP1 contains one Rho GAP domain and one phorbol-ester/DAG-type zinc finger. Rac GAP1 plays an essential role in cytokinesis, functioning as a scaffold protein as well as a GTPase regulator. During cytokinesis, Rac GAP1 is phosphorylated at multiple sites.

REFERENCES

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3. Hu, Y., et al. 2002. Molecular characterization of a metastatic neuroendocrine cell cancer arising in the prostates of transgenic mice. *J. Biol. Chem.* 277: 44462-44474.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 604980. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Lu, K.H., et al. 2004. Selection of potential markers for epithelial ovarian cancer with gene expression arrays and recursive descent partition analysis. *Clin. Cancer Res.* 10: 3291-3300.
6. Katoh, Y. and Katoh, M. 2004. Identification and characterization of ARHGAP27 gene in silico. *Int. J. Mol. Med.* 14: 943-947.
7. Katoh, M. and Katoh, M. 2004. Characterization of human ARHGAP10 gene in silico. *Int. J. Oncol.* 25: 1201-1206.

CHROMOSOMAL LOCATION

Genetic locus: RACGAP1 (human) mapping to 12q13.12; Racgap1 (mouse) mapping to 15 F1.

SOURCE

Rac GAP1 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Rac GAP1 of human origin.

RESEARCH USE

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

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-82735 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Rac GAP1 (N-19) is recommended for detection of Rac GAP1 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 Rac family members.

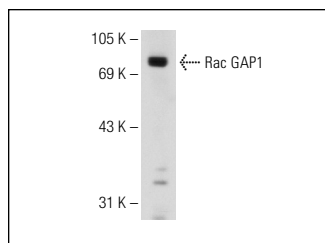
Rac GAP1 (N-19) is also recommended for detection of Rac GAP1 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for Rac GAP1 siRNA (h): sc-76335, Rac GAP1 siRNA (m): sc-76336, Rac GAP1 shRNA Plasmid (h): sc-76335-SH, Rac GAP1 shRNA Plasmid (m): sc-76336-SH, Rac GAP1 shRNA (h) Lentiviral Particles: sc-76335-V and Rac GAP1 shRNA (m) Lentiviral Particles: sc-76336-V.

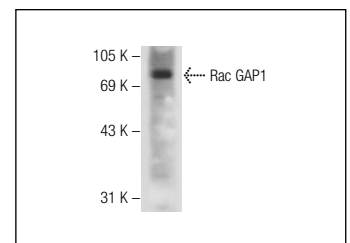
Molecular Weight of Rac GAP1: 70 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203 or Jurkat whole cell lysate: sc-2204.

DATA



Rac GAP1 (N-19): sc-82735. Western blot analysis of Rac GAP1 expression in K-562 whole cell lysate.



Rac GAP1 (N-19): sc-82735. Western blot analysis of Rac GAP1 expression in Jurkat whole cell lysate.

STORAGE

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


 MONOS
Satisfation
Guaranteed

Try **Rac GAP1 (A-6): sc-271110** or **Rac GAP1 (B-7): sc-166477**, our highly recommended monoclonal alternatives to Rac GAP1 (N-19).