

Rac 1 (H-61): sc-366230

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. Two proteins in this family, Rac 1 and Rac 2, are 92% identical and share GTP binding and GTP hydrolysis motifs with other members of the Ras superfamily. Rac 1 is expressed in a large number of different cell types. Rac 2 is primarily expressed only in myeloid cells and has been reported to be a regulatory component of the human neutrophil NADPH oxidase.

REFERENCES

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2. Sewell, J.L. and Kahn, R.A. 1988. Sequences of the bovine and yeast ADP-ribosylation factor and comparison to other GTP-binding proteins. *Proc. Natl. Acad. Sci. USA* 85: 4620-4624.
3. Didsbury, J., et al 1989. Rac, a novel Ras-related family of proteins that are botulinum toxin substrates. *J. Biol. Chem.* 264: 16378-16382.
4. Hall, A. 1990. The cellular functions of small GTP-binding proteins. *Science* 249: 636-640.
5. Xu, G., et al 1990. The catalytic domain of the neurofibromatosis type 1 gene product stimulates Ras GTPase and complements ira mutants of *S. cerevisiae*. *Cell* 63: 835-841.
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7. Ballester, R.M., et al 1990. The NF1 locus encodes a protein functionally related to mammalian GAP and yeast IRA proteins. *Cell* 63: 851-859.
8. Diekmann, D., et al 1991. Bcr encodes a GTPase-activating protein for p21Rac. *Nature* 351: 400-402.

CHROMOSOMAL LOCATION

Genetic locus: RAC1 (human) mapping to 7p22.1; Rac1 (mouse) mapping to 5 G2.

SOURCE

Rac 1 (H-61) is a rabbit polyclonal antibody raised against amino acids 131-191 mapping near the C-terminus of Rac 1 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.

STORAGE

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

APPLICATIONS

Rac 1 (H-61) is recommended for detection of Rac 1 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).

Rac 1 (H-61) is also recommended for detection of Rac 1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Rac 1 siRNA (h): sc-36351, Rac 1 siRNA (m): sc-36352, Rac 1 shRNA Plasmid (h): sc-36351-SH, Rac 1 shRNA Plasmid (m): sc-36352-SH, Rac 1 shRNA (h) Lentiviral Particles: sc-36351-V and Rac 1 shRNA (m) Lentiviral Particles: sc-36352-V.

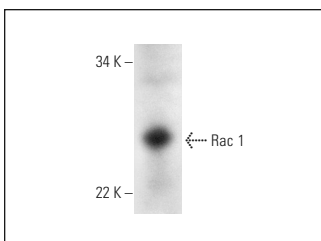
Molecular Weight of Rac 1: 26 kDa.

Positive Controls: mouse brain extract: sc-2253.

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.

DATA



Rac 1 (H-61): sc-366230. Western blot analysis of Rac 1 expression in mouse brain tissue extract.

RESEARCH USE

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

MONOS
Satisfaction
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Try **pan Rac (G-2): sc-514583**, our highly recommended monoclonal alternative to Rac 1 (H-61). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **pan Rac (G-2): sc-514583**.