

## Rac 2 (C-11): sc-96

### 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.

### CHROMOSOMAL LOCATION

Genetic locus: RAC2 (human) mapping to 22q13.1; Rac2 (mouse) mapping to 15 E1.

### SOURCE

Rac 2 (C-11) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within the C-terminus of Rac 2 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-96 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

Rac 2 (C-11) is recommended for detection of Rac 2 p21 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 Rac 2 siRNA (h): sc-29461, Rac 2 siRNA (m): sc-36353, Rac 2 shRNA Plasmid (h): sc-29461-SH, Rac 2 shRNA Plasmid (m): sc-36353-SH, Rac 2 shRNA (h) Lentiviral Particles: sc-29461-V and Rac 2 shRNA (m) Lentiviral Particles: sc-36353-V.

Molecular Weight of Rac 2: 25 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, A-431 whole cell lysate: sc-2201 or RAW 264.7 whole cell lysate: sc-2211.

### STORAGE

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

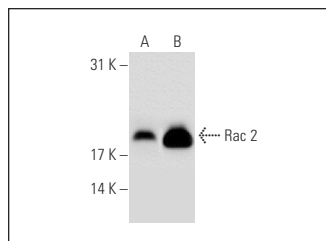
### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

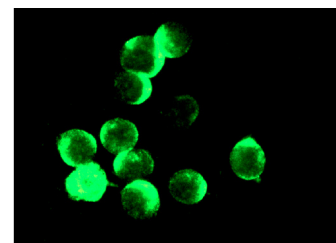
### RESEARCH USE

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

### DATA



Rac 2 (C-11): sc-96. Western blot analysis of Rac 2 expression in A-431 (A) and HeLa (B) whole cell lysates.



Rac 2 (C-11): sc-96. Immunofluorescence staining of methanol-fixed HL-60 cells showing cytoplasmic localization.

### SELECT PRODUCT CITATIONS

1. Coso, O.A., et al. 1995. The small GTP-binding proteins Rac 1 and Cdc42 regulate the activity of the JNK/SAPK signaling pathway. *Cell* 81: 1137-1146.
2. Kwak, J.Y., et al. 1995. RhoA and a cytosolic 50-kDa factor reconstitute GTPγS-dependent phospholipase D activity in human neutrophil subcellular fractions. *J. Biol. Chem.* 270: 27093-27098.
3. Philips, M., et al. 1995. Translocation of p21rac2 from cytosol to plasma membrane is neither necessary nor sufficient for neutrophil NADPH oxidase activity. *J. Biol. Chem.* 270: 11514-11521.
4. Calvo, F., et al. 2011. RasGRF suppresses Cdc42-mediated tumour cell movement, cytoskeletal dynamics and transformation. *Nat. Cell Biol.* 13: 819-826.
5. Ellison, M.A., et al. 2012. Phox activity of differentiated PLB-985 cells is enhanced, in an agonist specific manner, by the PLA2 activity of Prdx6-PLA2. *Eur. J. Immunol.* 42: 1609-1617.
6. Gupta, R., et al. 2013. Glutamate induces neutrophil cell migration by activating class I metabotropic glutamate receptors. *Amino Acids* 44: 757-767.
7. Yuzugullu, H., et al. 2015. A PI3K p110β-Rac signalling loop mediates Pten-loss-induced perturbation of haematopoiesis and leukaemogenesis. *Nat. Commun.* 6: 8501.
8. Manukjan, G., et al. 2015. Expression of the ETS transcription factor GABPα is positively correlated to the Bcr-Abl1/Abl1 ratio in CML patients and affects imatinib sensitivity *in vitro*. *Exp. Hematol.* 43: 880-890.

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