# Rac 2 (L-10): sc-23121



# BACKGROUND

A large number of low molecular weight, GTP binding proteins of the Ras superfamily have been identified (1). 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 (2-6). 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 (7,8). Rac 1 is expressed in a large number of different cell types. Rac 2 is primarily expressed only in myeloid cells (8) and has been reported to be a regulatory component of the human neutrophil NADPH oxidase (9).

## SOURCE

Rac 2 (L-10) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the carboxy terminus of Rac 2 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml PBS containing 0.1% sodium azide and 0.2% gelatin.

Blocking peptide is available for competition studies (sc-23121 P) (100  $\mu$ g peptide in 0.5 ml PBS with 0.1% sodium azide and 100  $\mu$ g BSA).

#### SPECIFICITY

Rac 2 (L-10) is recommended for the detection of Rac 2 of mouse, rat and human origin by Western blotting and immunohisto-chemistry.

Recommended dilution range for Western blot analysis: 1:100–1:1000. Recommended starting dilution: 1:100.

#### STORAGE

Store at 4° C, do not freeze; stable for one year from the date of shipment.

# **RESEARCH USE**

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

#### **BACKGROUND REFERENCES**

1. Hall, A. 1990. The cellular functions of small GTP-binding proteins. Science <u>249</u>: 636-640.

2. Trahey, M. and McCormick, F. 1987. A cytoplasmic protein stimulates normal N-*ras* p21 GTPase, but does not affect oncogenic mutants. Science <u>238</u>: 542-545.

3. Martin, G.A., Viskochil, D., Bollag, G., McCabe, P.C., Crosier, W.J., Haubruck, H., Conroy, L., Clark, R., O'Connell, P., Cawthon, R.M., Innis, M.A., and McCormick, F. 1990. The GAP-related domain of the neurofibromatosis type 1 gene product interacts with *ras* p21. Cell <u>63</u>: 843-849.

4. Ballester, R.M., Marchuk, D., Boguski, M., Saulino, A., Letcher, R., Wigler, M., and Collins, F. 1990. The NF1 locus encodes a protein functionally related to mammalian GAP and yeast *IRA* proteins. Cell <u>63</u>: 851-859.

5. Xu, G., Lin, B., Tanaka, K., Dunn, D., Wood, D., Gesteland, R., White, R., Weiss, R., and Tamanoi, F. 1990. The catalytic domain of the neurofibromatosis type 1 gene product stimulates *ras* GTPase and complements *ira* mutants of *S. cerevisiae*. Cell <u>63</u>: 835-841.

6. Diekmann, D., Brill, S., Garrett, M.D., Totty, N., Hsuan, J., Monfries, C., Hall, C., Lim, L. and Hall, A. 1991. *Bcr* encodes a GTPase-activating protein for p21<sup>me</sup>. Nature <u>351</u>: 400-402.

7. 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 <u>85</u>: 4620-4624.

8. Didsbury, J., Weber, R.F., Bokoch, G.M., Evans, T. and Snyderman, R. 1989. *Rac*, a novel *ras*-related family of proteins that are botulinum toxin substrates. J. Biol. Chem. <u>264</u>: 16378-16382.

9. Knaus, U.G., Heyworth, P.G., Evans, T., Curnutte, J.T., and Bokoch, G.M. 1991. Regulation of phagocyte oxygen radical production by the GTP-binding protein Rac2. Science <u>254</u>: 1512-1515.

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