SANTA CRUZ BIOTECHNOLOGY, INC.

GAP-assoc p190 (C-20): sc-518

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

It is well established that Ras oncogenes have a central role in the pathogenesis of a broad range of malignancies. However, their mechanism of action is unclear. All members of the ras oncogene family encode 21 kDa proteins that bind the guanine nucleotides GDP and GTP and can hydrolyze bound GTP. These proteins are members of a much larger family of GTPases that are involved in the regulation of many cellular pathways and are themselves regulated by a GTPase-activation protein (GAP). In mitogenically activated and tyrosine kinase-transformed cells, Ras GAP forms a complex with a protein designated p190. p190 at its amino terminus contains sequence motifs characteristic of all known GTPases while the carboxy terminal domain contains sequences similar to those found in the Bcr gene product and n-chimeric and Rho GAP, all of which exhibit intrinsic GAP activity. In addition, the central domain of p190 contains a sequence nearlyidentical to that of the transcriptional repressor, GRF-1.

REFERENCES

1. Barbacid, M. 1987. Ras genes. Ann. Rev. Biochem. 56: 779-827.
2. Trahey, M. and McCormick, F. 1987. A cytoplasmic protein stimulates normal N-Ras p21 GTPase, but does not affect oncogenic mutants. Science 242: 1697-1700.
3. Vogel, U.S., Dixon, R.A.F., Schaber, M.D., Diehl, R.E., Marshall, M.S., Scolnick, E.M., Sigal, I.S. and Gibbs, J.B. 1988. Cloning of bovine GAP and its interaction with oncogenic ras p21. Nature 335: 90-93
4. Bos, J.L. 1988. Ras oncogenes in human cancer: a review. Cancer Res. 49: 4682-4689.
5. Sanders, D.A. 1990. A guide to the low molecular weight GTPases. Cell Growth and Diff. 1: 251-258.
6. Bourne, H.R., Sanders, D.A. and McCormick, F. 1990. The GTPase superfamily: a conserved switch for diverse cell functions. Nature 348: 125-132.
7. Settleman, J., Narasimhan, V., Foster, L.C. and Weinberg, R.A. 1992. Molecular cloning of cDNAs encoding the GAP-associated protein p190: implications for a signaling pathway from Ras to the nucleus. Cell 69: 539-549.

SOURCE

GAP-assoc p190 (C-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of GAP-assoc p190 of rat 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-518 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

GAP-assoc p190 (C-20) is recommended for detection of GAP-associated p190 of rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

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) 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.

SELECT PRODUCT CITATIONS

1. Custodis, F., Eberl, M., Kilter, H., Böhm, M. and Laufs, U. 2006. Association of Rho GDIα with Rac1 GTPase mediates free radical production during myocardial hypertrophy. Cardiovasc. Res. 71: 342-351.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.