

# Ras2 (y-130): sc-28549

## BACKGROUND

The guanine nucleotide exchange factor Cdc25 (also designated Ctn1) regulates adenyl cyclase via the small G proteins Ras1 and Ras2 (also known as Glc5 or Ctn5). The yeast Ras proteins regulate cell growth and development by cycling between an active GTP-bound state and an inactive GDP-bound state. Adenyl cyclase, encoded by the Cdc35 gene (also designated Cyr1, Hrs-1 or SRA 4), catalyzes the formation of the second messenger cAMP. cAMP exerts its effects via a cAMP-dependent kinase consisting of two regulatory subunits, encoded by Bcy1 (also designated Reg 1 or SRA 1), and two catalytic subunits, encoded by Tpk1 (also designated PKA 1 or SRA 3).

## REFERENCES

1. Broek, D., Samiy, N., Fosano, O., Fujiyama, A., Tamanoi, F., Northup, J. and Wigler, M. 1985. Differential activation of yeast adenylate cyclase by wild-type and mutant Ras proteins. *Cell* 41: 763-769.
2. Kataoka, T., Broek, D. and Wigler, M. 1985. DNA sequence and characterization of the *S. cerevisiae* gene encoding adenylate cyclase. *Cell* 43: 493-505.
3. Toda, T., Cameron, S., Sass, P., Zoller, M., Scott, J.D., McMullen, B., Hurwitz, M., Krebs, E.G. and Wigler, M. 1987. Cloning and characterization of Bcy1, a locus encoding a regulatory subunit of the cAMP-dependent protein kinase in *Saccharomyces cerevisiae*. *Mol. Cell. Biol.* 7: 1371-1377.
4. Broek, D., Toda, T., Michaeli, T., Levin, L., Birchmeier, C., Zoller, M., Powers, S. and Wigler, M. 1987. The *S. cerevisiae* Cdc25 gene product regulates the Ras/adenylate cyclase pathway. *Cell* 48: 789-799.
5. Toda, T., Cameron, S., Sass, P., Zoller, M. and Wigler, M. 1987. Three different genes in *S. cerevisiae* encode the catalytic subunits of the cAMP-dependent protein kinase. *Cell* 50: 277-287.

## SOURCE

Ras2 (y-130) is a rabbit polyclonal antibody raised against amino acids 181-310 mapping near the C-terminus of Ras2 of *Saccharomyces cerevisiae* origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Ras2 (y-130) is recommended for detection of Ras2 of *Saccharomyces cerevisiae* 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).

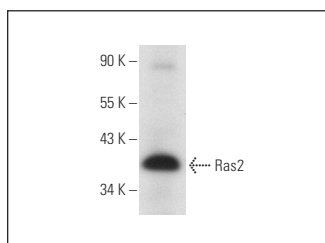
Molecular Weight of Ras2: 35 kDa.

Positive Controls: *S. cerevisiae* whole cell lysate.

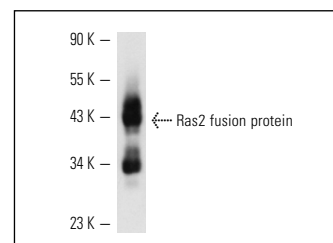
## RECOMMENDED SECONDARY REAGENTS

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



Ras2 (y-130): sc-28549. Western blot analysis of Ras2 expression in *Saccharomyces cerevisiae* whole cell lysate.



Ras2 (y-130): sc-28549. Western blot analysis of yeast recombinant Ras2 fusion protein.

## SELECT PRODUCT CITATIONS

1. Gladue, D.P. and Konopka, J.B. 2008. Scanning mutagenesis of regions in the G<sub>α</sub> protein Gpa1 that are predicted to interact with yeast mating pheromone receptors. *FEMS Yeast Res.* 8: 71-80.

## STORAGE

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

## RESEARCH USE

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

## PROTOCOLS

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



Try **Ras2 (A-11): sc-365773**, our highly recommended monoclonal alternative to Ras2 (y-130).