c-H-ras (Ab-1)

Cat# OP23, OP23L

Background: The human ras gene family consists of three identified members, H, K and N-ras, encoding proteins of 188-189 amino acids and 21,000 (p21) molecular weight (1,2). Human H- and K-ras are the homologues of v-H- and v-K-ras sequences originally isolated from Harvey and Kirsten strains of rat sarcoma viruses (3,4). Normal human cellular ras genes can be activated to oncogenes by mutations occurring in codons 12, 13 and 61; such mutated, activated and transforming ras genes have been identified and isolated from human tumors and cultured tumor cells (for review see 5). Although the expression patterns of ras proto-oncogene proteins in normal human tissues are known (6), similar information for activated ras oncogene encoded p21's and their relevance to human disease diagnosis and prognosis is still emerging (7, 8, 9).

Origin: Clone F235-1.7.1 is a mouse monoclonal antibody generated by immunizing BALB/c mice with recombinant p21 protein and fusing with P3X63 Ag8.653 myeloma cells.

Characteristics:

Isotype: $IgG_1\kappa$

Epitope: within residues 54-188

Species Reactivity

human	mouse	rat	other
Y	Y	Y	NT

legend: Y=yes NT=not tested

Applications:

Immuno-Precipitation*

amount	label	positive control
5 μg per reaction	³⁵ S-Met	ras 1 cells

Frozen Sections

amount	positive	negative
	control	control
5 μg/mL	normal skin	trpE (Ab-1)

Paraffin Sections

amount	detergent	enzyme	positive	negative
			control	control
5 μg/mL	saponin	pepsin	normal skin	trpE (Ab-1)

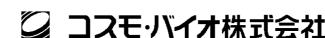
Western Blotting*

amount	chemi-	colori-	positive
	luminescent	metric	control
10 μg/mL	NT	Y	ras 1 cells

Immunofluorescence

amount	positive	
	control	
2.5 μg/mL	ras 1 cells	

legend: Y=yes NT=not tested



^{*}See Comments

How Supplied: 100 μg or 200 μg (Cat# OP23) of purified antibody in 1.0 mL of 0.05 M sodium phosphate buffer containing 0.1% sodium azide and 0.2% gelatin; or 100 μg (Cat# OP23L) purified antibody lyophilized from a volatile buffer with 100 μg of BSA. We recommend resuspending the lyophilized antibody with sterile phosphate buffered saline (PBS), pH 7.4, or sterile 20 mM Tris-saline (20 mM Tris containing 0.15 M NaCl), pH 7.4, to yield a final concentration of 100 $\mu g/mL$; product will be more stable if 0.1% sodium azide is included (do not add azide if antibody is to be used with viable cells). Lyophilized antibody should be resuspended at 4°C with occasional gentle mixing for at least two hours.

Storage: Store Cat# OP23 (in solution) at 4°C; do not freeze. Store Cat# OP23L (lyophilized) at 4°C until reconstituted, then store in aliquots at -20°C or at 4°C with 0.1% azide; freezing of aliquots is best for storage of reconstituted product for longer than a month, but repetitive freezing and thawing should be avoided. If stored under proper conditions, product guaranteed until expiration date stated.

Comments: For immunoprecipitation, use 5 μ g Cat# OP23 per sample with 45 μ L protein G plus agarose. The level of expression of p21 ras is variable in different tissues. For this reason, we recommend a concentration step prior to western blot analysis to obtain optimal results. A doublet may be seen due to farnysylation. c-H-ras (Ab-1) will react to C-H-ras and, weakly, to v-H-ras, it does not detect either c-K-ras or c-N-ras p21s under the conditions tested. Purified p21 ras proteins are also available for western blotting standards. Suggested starting concentrations are provided. Antibodies should be titrated for optimal results in individual systems.

References:

- 1. Shimizu, K., et al., Proc. Natl. Acad. Sci. USA 80: 2112-2116, 1983.
- 2. Taparowsky, E., et al., Cell 34: 581-586, 1983.
- 3. Ellis, R.W., et al., Nature 292: 506-511, 1981.
- 4. Shih, T.Y., et al., Nature 287: 686-691, 1980.
- 5. Bos, J.L. Cancer Res. 49: 4682-4689, 1989.
- 6. Furth, M. E., et al., Oncogene 1: 47-58, 1987.
- 7. Rodenhuis, S. et al., Cancer Res. (Suppl) 52: 2665s-2669s, 1992.
- 8. Sidransky, D., et al., Science 256: 102-105, 1992.
- 9. Kraus, M.H., et al., Proc. Natl. Acad. Sci. USA 81: 5384-5388, 1984.

© 1996 Calbiochem-Novabiochem, International Cat# OP23, OP23L Rev. 22-Sep-98 BOF

ONCOGENE RESEARCH PRODUCTS

84 Rogers Street, Cambridge, MA 02142 Tel: 617 577-1639 800 662-2616 Fax: 617 577-8015 800 828-4871 E-Mail: customer.service@oncresprod.com

Web Pages: www.oncresprod.com

ORDERING INFORMATION

Research reagents may be ordered by mail at the address shown at left, by telephone, E-mail, or fax or from your local Oncogene Research Products supplier. Terms are net 30 days F.O.B. shipping point.

For research use only, not for use in diagnostic procedures

