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Product Information

MONOCLONAL ANTI-PAN-RAS

Clone RAS 10

Purified Mouse Immunoglobulin

Product Number **R 4025**

Product Description

Monoclonal Anti-Pan-Ras (mouse IgG2a κ isotype) is derived from the hybridoma produced by the fusion of SP2/0 myeloma cells with splenocytes from an immunized BALB/c mouse. Purified recombinant p21 was used as the immunogen.¹ The antibody is purified using Protein A or Protein G.

Monoclonal Anti-Pan-Ras reacts specifically with H, K, and N Ras from human, mouse or rat. Other species have not been tested. The antibody may be used for immunoblotting, immunoprecipitation, immunohistochemistry (paraffin-embedded) and immunofluorescence.

Ras proteins are signal-transducing, guanine nucleotide-binding proteins that appear to function as a branchpoint in signal transduction. Ras coordinates the activity of multiple signaling pathways, regulating diverse cellular functions including cell growth, differentiation and apoptosis.

The human ras gene family consists of three identified members which encode proteins of 21 kDa.² Human c-H-ras and c-K-ras are the cellular homologs of v-H- and v-K-ras originally isolated from Harvey and Kirsten strains of rat sarcoma viruses.²⁻⁴ The third family member is designated c-N-ras.^{5,6}

Normal cellular ras genes are referred to as proto-oncogenes and have the potential for activation 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.⁷ Although the expression patterns of ras proto-oncogene proteins in normal human tissues are known,⁸ similar information for activated ras oncogene encoded p21s and their relevance to human disease diagnosis and prognosis remains to be determined.^{9,10}

Reagents

Monoclonal Anti-Pan-Ras is supplied as 0.1 mg/ml of purified antibody in 0.05M sodium phosphate buffer, pH 7.5 containing 0.1% sodium azide and 0.2% gelatin.

Precautions and Disclaimer

Due to the sodium azide content a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazardous and safe handling practices.

Storage/Stability

Store product at 2-8 °C. Do not freeze. If slight turbidity develops upon prolonged storage, clarify solution by centrifugation.

Product Profile

The recommended working concentration for immunoblotting is 2-5 μ g/ml using lysate from MCF-7 at 2.5 μ g/ml and the recommended concentration for immunoprecipitation is 1 μ g/sample. The recommended concentration for immunofluorescence using SW480 or Y1 cells or for immunohistochemistry using frozen or paraffin-embedded breast carcinoma sections is 2.5 μ g/ml. Paraffin sections will require treatment with saponin (0.05% in water, 30 min.) or pepsin (0.1% in 0.1N HCl, 10-20 min.) at room temperature.

In order to obtain best results and assay sensitivities of different techniques and preparations, we recommended determining optimal working dilutions by titration test.

References

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