



## Product Information

### Monoclonal Anti-c-N-Ras

Clone F155-227

Purified Mouse Immunoglobulin

Product Number **R 3525**

#### Product Description

Monoclonal Anti-c-N-Ras (mouse IgG1 $\kappa$  isotype) is derived from the hybridoma produced by the fusion of P3X63 Ag8.653 mouse myeloma cells with splenocytes from an immunized mouse. Recombinant p21 protein was used as immunogen. The antibody is purified using Protein A or Protein G.

Monoclonal Anti-c-N-Ras reacts with c-N-Ras and v-N-Ras but not with c-H-Ras or c-K-Ras. The antibody may be used for immunohistochemistry (frozen or paraffin sections), immunoprecipitation, and immunoblotting with human, mouse, or rat samples.

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 signalling 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.<sup>1</sup>

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.<sup>1-3</sup> The third family member is designated c-N-ras.<sup>4,5</sup>

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.<sup>6</sup> Although the expression patterns of ras proto-oncogene proteins in normal human tissues are known,<sup>7</sup> similar information for activated ras oncogene encoded p21s and their relevance to human disease diagnosis and prognosis remains to be determined.<sup>8,9</sup>

#### Reagents

Monoclonal Anti-c-N-Ras is supplied as 0.1-0.2 mg/ml of purified antibody in 0.05 M 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 at 2-8 °C. Do not freeze. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use.

#### Product Profile

For immunohistochemistry, the recommended working antibody concentration is approximately 10  $\mu$ g/ml for immunohistochemistry using frozen or paraffin-embedded neuronal tissue sections. Anti-trp E may be used as a negative control. 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.

For immunoblotting, a minimum working antibody concentration of 5  $\mu$ g/ml is recommended using a neuronal cell extract and a colorimetric detection system.

For immunoprecipitation, use 5  $\mu$ g antibody per sample with 45  $\mu$ l of Protein G-agarose.

In order to obtain the best results and assay sensitivity in various techniques and preparations, we recommend determining optimum working dilutions by titration.

#### References

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