

## Product Information

### ANTI-CASPASE 6 Developed in Rabbit Affinity Isolated Antibody

Product Number **C7599**

#### Product Description

Anti-Caspase 6 is developed in rabbit using a synthetic peptide KREMFDPAEKYKMDHRRR-C corresponding to the N-terminal region of caspase 6 $\alpha$  isoform (amino acid residues 27-44 with C-terminal added cysteine) conjugated to maleimide-activated BSA as immunogen. The peptide also corresponds to amino acid residues 4-21 of the human enzyme p18 subunit. The antibody is affinity-purified using the immunogen peptide immobilized on agarose.

Anti-Caspase 6 recognizes a 34 kD band corresponding to the caspase 6 precursor by immunoblotting. Staining of caspase 6 band is specifically inhibited with the immunizing peptide. Additional weak bands may be detected in some cell line extracts.

Caspases are a family of intracellular cysteine proteases that cleave their substrates after aspartic acid residues. They form an intricately regulated protease network which plays an essential role in apoptosis.<sup>1,2</sup> Procaspase 6 (Mch2), a member of the ICE/ced-3 subfamily is an inactive proenzyme that is activated by proteolytic cleavage at specific aspartic acid residues. During cleavage, the N-terminal short prodomain is removed and the proenzyme is converted into a large (p18) and small (p11) subunits.<sup>3,4</sup> Caspase 6 has two isoforms,  $\alpha$  and  $\beta$ , produced by alternative splicing. Over-expression of the long form of caspase 6 without its prodomain can induce apoptosis. The short  $\beta$  isoform does not seem to display proteolytic activity. Together with caspases 3 and 7, the  $\alpha$  isoform of caspase 6 is classified as an effector/execution caspase. Procaspase 6 is cleavable by caspase 3, caspase 8 and caspase 10. Active caspase 6 can cleave several cellular proteins such as lamins, NuMa and Keratin 18.<sup>5,6,7,8</sup> A possible cleavage of caspases 8 and 10 in cytochrome-C dependent apoptosis was reported recently.<sup>9</sup>

#### Reagents

Anti-Caspase 6 is supplied as affinity isolated antibody in 0.01 M phosphate buffered saline, pH 7.4, containing 1% BSA and 15 mM sodium azide (see MSDS)\* as a preservative. Protein concentration is approximately 1 mg/ml by absorbance at 280 nm.

#### Precautions and Disclaimer

\* Due to the sodium azide content a material safety 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

For continuous use, store at 2-8°C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. Storage in "frost-free" freezers is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

#### Product Profile

A minimum working dilution of 1:1,000 is determined by immunoblotting using a whole extract of a Jurkat human T-cell leukemia cell line.

Note: In order to obtain best results and assay sensitivity in different techniques and preparations we recommend determining optimal working dilutions by titration test.

## References

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