

## Product Information

### ANTI-CASPASE 10

Developed in Rabbit, Affinity Isolated Antibody

Product Number **C8351**

#### Product Description

Anti-Caspase 10 is developed in rabbit using a synthetic peptide corresponding to amino acid residues 359-372 of human caspase 10a p23/p17 with N-terminal added lysine conjugated to KLH with glutaraldehyde. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-Caspase 10 specifically recognizes the proform and the active cleaved form of human caspase 10 by immunoblotting (59 kDa). It reacts with an epitope present in both caspase 10a (Mch4) and 10b (FLICE2). Staining of caspase 10 by immunoblotting is specifically inhibited with the immunizing peptide.

Caspases are a family of intracellular proteases that mediate cell death and are the principal effectors of apoptosis.<sup>3</sup> Caspase 10 (Mch4, ICE-LAP4, FLICE2) plays an important role in apoptosis induced by a variety of inducers such as TNF- $\alpha$  and Anti-Fas antibody. It is a large- prodomain caspase classified together with caspases 2, 8, and 9 as a signaling caspase. Four isoforms of caspase 10 (caspase 10a, 10b, 10c, and 10d) having the same prodomain but different mature large and small subdomain, have been described.<sup>1,2</sup>

Caspase 10 contains two death domains (DED) involved in linking to the death effector domain of the adapter protein FADD and recruiting the complex to TNFR1 and Fas. The inactive procaspase 10 is variably expressed in many tissues and cell lines as a cytosolic protein. The mature form of caspase 10 comprises two subunits, p23/p17 (splice isoforms) and p12. Interestingly, a caspase 9- dependent processing of caspase 10 by caspase 6 in cell-free extracts has recently been suggested.<sup>6</sup>

Caspase 10 can cleave and activate caspases 3, 4, 6, 7, 8, and 9.<sup>3,4</sup> This is followed by cleavage of numerous key proteins, including the nuclear protein PARP.<sup>1,2,4,7</sup>

#### Reagent

Anti-Caspase 10 is supplied as a solution in

0.01 M phosphate buffered saline, pH 7.4, containing 1% bovine serum albumin and 15 mM sodium azide.

#### 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 hazards and safe handling practices.

#### Storage/Stability

For continuous use, store at 2 °C to 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 1:500 is determined by immunoblotting using whole extract of Jurkat human acute T leukemia cells extract.

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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4. Srinivasula, S.M., et al., *Proc. Natl. Acad. Sci. USA*, **93**, 14486-14491 (1996).
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6. Slee, E.A., et al., *J. Cell Biol.*, **144**, 281-299 (1999).
7. Wang, J., et al., *Cell*, **98**, 47-58 (1999).

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