

# Product Information



## Caspase-8 (human recombinant)

Catalog No. 10007630 • Lot. No. XXXXX

<b>Synonyms:</b>	FLICE, MACH, MCH5
<b>Source:</b>	Recombinant enzyme expressed in <i>E. coli</i> and purified out of inclusion bodies.
<b>M<sub>r</sub>:</b>	Active enzyme is composed of 11 and 19 kDa processed fragments
<b>Purity:</b>	≥95% by SDS-PAGE
<b>Stability:</b>	≥6 months at -80°C; avoid repeated freeze/thaw cycles
<b>Supplied as:</b>	A solution in 20 mM Tris-HCl, pH 8.0, containing 500 mM sodium chloride, 20 mM β-mercaptoethanol, 2.5 mM EDTA, 10% sucrose, and 0.1% CHAPS
<b>Specific activity:</b>	XXX units/mg
<b>Protein concentration:</b>	XXX mg/ml
<b>Activity:</b>	XXX units/ml
<b>Unit Definition:</b>	One unit is defined as the amount of enzyme that will liberate 1.0 nmol of <i>p</i> -nitroaniline ( <i>p</i> NA) per minute at 25°C in 100 mM Na <sup>+</sup> phosphate, pH 7.5, containing 10 mM dithiothreitol and 250 μM Ac-Lle-Glu-Thr-Asp- <i>p</i> NA. Caspase-8 was diluted 1:10 with 100 mM Na <sup>+</sup> phosphate, pH 7.5, before assaying 10 μl in a final volume of 200 μl in a microwell plate. The change in absorbance was monitored at 405 nm.

Caspase-8 is a member of the interleukin-1 converting enzyme (ICE) family of cysteine proteases. It exists in the cell as an inactive 55 kDa proenzyme. During apoptosis, procaspase-8 is processed at aspartate residues by self-proteolysis and/or cleavage by another caspase. The processed form of caspase-8 consists of large and small subunits which associate to form the active enzyme. Caspase-8 activates downstream caspases (caspase 3, 6, and 7) that cleave key cellular substrates leading to apoptotic cell death.<sup>1,2</sup>

### References

- Budihardjo, I., Oliver, H., Lutter, M., *et al.* Biochemical pathways of caspase activation during apoptosis. *Annu. Rev. Cell Dev. Biol.* **15**, 269-290 (1999).
- Goyal, L. Cell death inhibition: Keeping caspases in check. *Cell* **104**, 805-808 (2001).

### Related Products

N-Ac-Asp-Glu-Val-Asp-CHO - Cat. No. 10017 • CAY10406 - Cat. No. 72510 • ARC Polyclonal Antibody - Cat. No. 160737 • Caspase-3 (human) Polyclonal Antibody - Cat. No. 160745 • Apaf-1 Polyclonal Antibody - Cat. No. 160780 • Caspase-9 Polyclonal Antibody - Cat. No. 160790 • Nod2 Monoclonal Antibody - Cat. No. 10004942

**WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY; NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

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