

# PRODUCT INFORMATION



## Z-YVAD-CMK (trifluoroacetate salt)

Item No. 27435

**Formal Name:** N-[(phenylmethoxy)carbonyl]-L-tyrosyl-L-valyl-N-[(1S)-1-(carboxymethyl)-3-chloro-2-oxopropyl]-L-alaninamide, trifluoroacetate salt

**Synonyms:** Benzyloxycarbonyl-Tyr-Val-Ala-Asp-Chloromethylketone, Caspase-1 Inhibitor IV

**MF:** C<sub>30</sub>H<sub>37</sub>ClN<sub>4</sub>O<sub>9</sub> • XCF<sub>3</sub>COOH

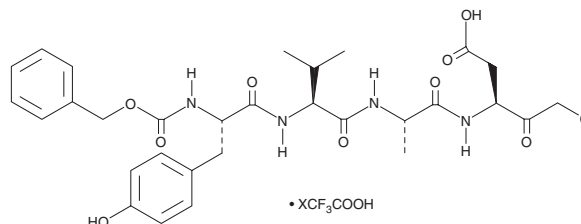
**FW:** 633.1

**Purity:** ≥95%

**Supplied as:** A solid

**Storage:** -20°C

**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Z-YVAD-CMK (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the Z-YVAD-CMK (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. Z-YVAD-CMK (trifluoroacetate salt) is soluble in the organic solvent DMSO at a concentration of approximately 1 mg/ml.

### Description

Z-YVAD-CMK is an inhibitor of caspase-1 and caspase-3.<sup>1,2</sup> It reduces IL-1 $\beta$  and IL-18 secretion in isolated mouse peritoneal macrophages stimulated by cholesterol-treated recombinant pneumolysin protein (rPLY) when used at a concentration of 30  $\mu$ M.<sup>1</sup> Z-YVAD-CMK reduces caspase-3 activation by the EGF-like domain of tenascin-C in detached human smooth muscle cells (hSMCs) *in vitro*.<sup>2</sup> It also decreases cell death induced by the EGF-like domain of tenascin-C by 50% when used at a concentration of 100  $\mu$ M in hSMCs and completely inhibits cell death at concentrations ranging from 200 to 400  $\mu$ M.

### References

1. Shoma, S., Tsuchiya, K., Kawamura, I., *et al.* Critical involvement of pneumolysin in production of interleukin-1 $\alpha$  and caspase-1-dependent cytokines in infection with *Streptococcus pneumoniae in vitro*: A novel function of pneumolysin in caspase-1 activation. *Infect. Immun.* **76(4)**, 1547-1557 (2008).
2. Wallner, K., Li, C., Shah, P.K., *et al.* EGF-Like domain of tenascin-C is proapoptotic for cultured smooth muscle cells. *Arterioscler. Thromb. Vasc. Biol.* **24(8)**, 1416-1421 (2004).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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