

Small Molecules

Ac-DEVD-CMK

Inhibits caspase-3, -6, -7, -8, and -10



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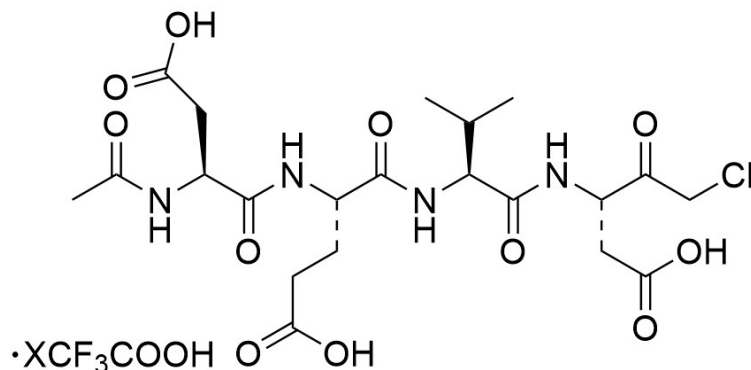
1 mg
5 mg

Product Description

Ac-DEVD-CMK is an irreversible and cell-permeable peptide-based inhibitor of caspase-3 (Thornberry & Lazebnik; Zhang et al.). It also inhibits caspase-6, -7, -8, and -10 (Thornberry & Lazebnik; Zhang et al.). This product is supplied as the trifluoroacetate salt of the molecule.

Molecular Name:	Ac-DEVD-CMK (Trifluoroacetate Salt)
Alternative Names:	Ac-Asp-Glu-Val-Asp-CMK; Caspase-3 inhibitor III
CAS Number:	Not applicable
Chemical Formula:	$C_{21}H_{31}ClN_4O_{11} \cdot XCF_3COOH$
Molecular Weight:	551.0 g/mol
Purity:	≥ 98%
Chemical Name:	N-acetyl-L- α -aspartyl-L- α -glutamyl-N-[(1S)-1-(carboxymethyl)-3-chloro-2-oxopropyl]-L-valinamide, 2,2,2-trifluoroacetate

Structure:



Properties

Physical Appearance:	A crystalline solid
Storage:	Product stable at -20°C as supplied. Protect product from prolonged exposure to light. For long-term storage, store with a desiccant. Stable as supplied for 12 months from date of receipt.
Solubility:	• DMSO ≤ 90 mM For example, to prepare a 10 mM stock solution in DMSO, resuspend 1 mg in 181 μ L of DMSO.

Prepare stock solution fresh before use. Information regarding stability of small molecules in solution has rarely been reported, however, as a general guide we recommend storage in DMSO at -20°C. Aliquot into working volumes to avoid repeated freeze-thaw cycles. The effect of storage of stock solution on compound performance should be tested for each application.

Compound has low solubility in aqueous media. For use as a cell culture supplement, stock solution should be diluted into culture medium immediately before use. Avoid final DMSO concentration above 0.1% due to potential cell toxicity.

Published Applications

CANCER RESEARCH

- Partially blocks apoptosis in lymphoma (Schrantz et al.).
- Inhibits the activation of caspase-3 induced by SIN-1 in neurons (Zhang et al.).

References

Schrantz N et al. (1999) Manganese induces apoptosis of human B cells: caspase-dependent cell death blocked by bcl-2. *Cell Death Differ* 6(5): 445–53.

Thornberry NA & Lazebnik Y. (1998) Caspases: enemies within. *Science* 281(5381): 1312–6.

Zhang Y et al. (2004) Peroxynitrite-induced neuronal apoptosis is mediated by intracellular zinc release and 12-lipoxygenase activation. *J Neurosci* 24(47): 10616–27.

Related Small Molecules

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