

PRODUCT INFORMATION



Z-DEVD-FMK

Item No. 14414

CAS Registry No.: 210344-95-9

Formal Name: N-[(phenylmethoxy)carbonyl]-L- α -aspartyl-L- α -glutamyl-N-[(1S)-3-fluoro-1-(2-methoxy-2-oxoethyl)-2-oxopropyl]-L-valinamide, 1,2-dimethyl ester

MF: C₃₀H₄₁FN₄O₁₂

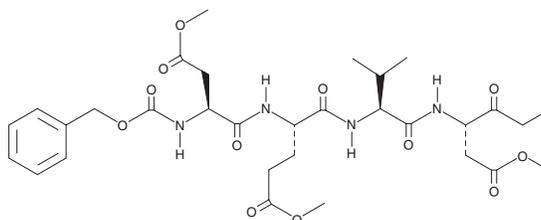
FW: 668.7

Purity: $\geq 95\%$

Supplied as: A crystalline 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-DEVD-FMK is supplied as a crystalline solid. A stock solution may be made by dissolving the Z-DEVD-FMK in the solvent of choice, which should be purged with an inert gas. Z-DEVD-FMK is soluble in the organic solvent DMSO at a concentration of approximately 10 mg/ml.

Description

Caspase-3 is a cysteinyl aspartate-specific protease which plays a central role in apoptosis.¹ Z-DEVD-FMK is a cell-permeable irreversible inhibitor of caspase-3 (IC₅₀ = 130 nM).^{2,3} It potently inhibits apoptosis.⁴

References

1. Granville, D.J., Carthy, C.M., Jiang, H., *et al.* Rapid cytochrome c release, activation of caspases 3, 6, 7, and 8 followed by Bap31 cleavage in HeLa cells treated with photodynamic therapy. *FEBS Lett.* **437**, 5-10 (1998).
2. Brockstedt, E., Rickers, A., Kostka, S., *et al.* Identification of apoptosis-associated proteins in a human Burkitt lymphoma cell line. Cleavage of heterogeneous nuclear ribonucleoprotein A1 by caspase 3. *J. Biol. Chem.* **273(43)**, 28057-28064 (1998).
3. Lee, J. and Bogoy, M. Development of near-infrared fluorophore (NIRF)-labeled activity-based probes for *in vivo* imaging of legumain. *ACS Chem. Biol.* **5(2)**, 233-243 (2010).
4. Kugawa, F., Ueno, A., and Aoki, M. Apoptosis of NG108-15 cells induced by buprenorphine hydrochloride occurs via the caspase-3 pathway. *Biol. Pharm. Bull.* **23(8)**, 930-935 (2000).

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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