

Z-VAD (OMe) -FMK

Catalog No: tcsc3153



Available Sizes

Size: 1mg

Size: 5mg

Size: 10mg



Specifications

CAS No:

187389-52-2

Formula:

$C_{22}H_{30}FN_3O_7$

Pathway:

Apoptosis

Target:

Caspase

Form:

White to off-white (Solid)

Purity / Grade:

>98%

Solubility:

DMSO : 100 mg/mL (213.91 mM; Need ultrasonic)

Storage Instruction:

Shipment : 4°C Storage: -20°C for 3 Years In Solvent : -80°C for 12 Months

Alternative Names:

Z-Val-Ala-Asp(OMe)-FMK; L-Alaninamide, N-[(phenylmethoxy)carbonyl]-L-valyl-N-[(1S)-3-fluoro-1-(2-methoxy-2-

oxoethyl)-2-oxopropyl]-

Observed Molecular Weight:

467.49

References

[1]. Kawasaki M, et al. Protection from lethal apoptosis in lipopolysaccharide-induced acute lung injury in mice by a caspaseinhibitor. Am J Pathol. 2000 Aug;157(2):597-603. [2]. Park S, et al. Neurovascular protection reduces early brain injury after subarachnoid hemorrhage. Stroke. 2004 Oct;35(10):2412-7. [3]. Ilangovan R, et al. Inhibition of apoptosis by Z-VAD-fmk in SMN-depleted S2 cells. J Biol Chem. 2003 Aug 15;278(33):30993-9. [4]. Davies CW, et al. The co-crystal structure of ubiquitin carboxy-terminal hydrolase L1 (UCHL1) with a tripeptide fluoromethyl ketone (Z-VAE(OMe)-FMK). Bioorg Med Chem Lett. 2012 Jun 15;22(12):3900-4

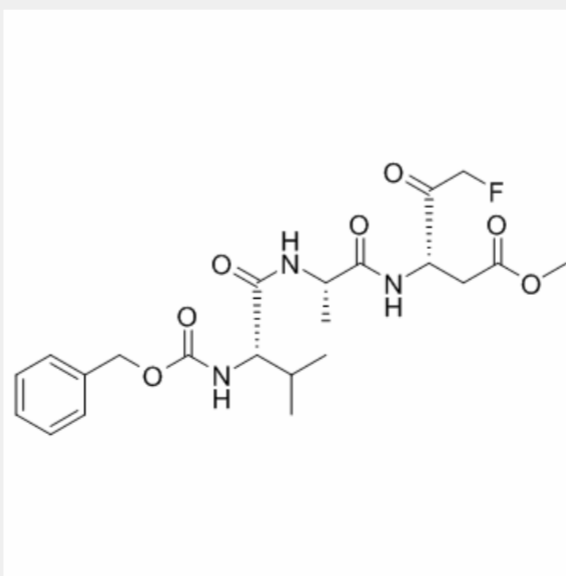
Product Description

Z-VAD(OMe)-FMK is a cell-permeable and irreversible **pan-caspase** inhibitor.

IC50 & Target: pan-caspase^[1]

In Vitro: Z-VAD(OMe)-FMK is a broad-spectrum caspase inhibitor, has been shown to inhibit the intracellular activation of caspase-like proteases. The injection of Z-VAD(OMe)-FMK suppresses the caspase-3 activity in lung tissues, and significantly decreases the number of terminal dUTP nick-end labeling-positive cells^[1]. Z-VAD(OMe)-FMK is administered intraperitoneally at 1 hour before and 6 hours after SAH. Expression of caspase-3 and positive TUNEL is examined as markers for apoptosis. Z-VAD(OMe)-FMK suppresses TUNEL and caspase-3 staining in endothelial cells, decreases caspase-3 activation, reduces BBB permeability, relieves vasospasm, abolishes brain edema, and improves neurological outcome^[2]. Z-VAD(OMe)-FMK is a cell-permeable caspase inhibitor, efficiently blocks cell death induced by SMN deficiency^[3].

In Vivo: The survival rate of mice is prolonged significantly by the injection of Z-VAD(OMe)-FMK. All mice succumbed to LPS within 30 hours. By contrast, the mice treated with Z-VAD(OMe)-FMK survive significantly longer and 27% of the mice survived more than 7 days^[1].



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