Web: www.taiclone.com
Tel: +886-2-2735-9682
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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℃ Storage: -20℃ for 3 Years In Solvent : -80℃ 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-

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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].