

Z-LEVD-FMK

Chemical Properties

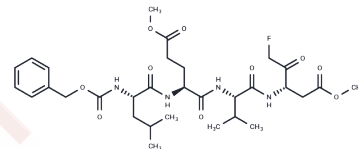
CAS No. : 1135688-25-3

Formula: C₃₁H₄₅FN₄O₁₀

Molecular Weight: 652.71

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	Z-LEVD-FMK is a cell-permeable caspase-4 inhibitor with potential anticancer activity, capable of eliminating LPS-induced GCLC protein degradation and inducing apoptosis in cancer cells.
Targets(IC50)	Apoptosis,Caspase
In vitro	Z-LEVD-FMK is a specific inhibitor of caspase-4. Z-LEVD-FMK (2 μM) completely eliminated IL-8 protein production in induced hRPE cells. [1] Z-LEVD-FMK was most active in blocking 17β-estradiol (E2) -induced apoptosis. In addition, z-LEVD-fmk completely blocked the cutting of ADP-ribose polymerase (PARP), and E2 inhibited growth and apoptotic morphology. [2] Z-LEVD-FMK (50 μM) treated for 72 hours only inhibited IL-17A-induced caspase-4 cleavage and N-terminal GSDMD up-regulation in CRC cells. There was no significant effect on the expression of NLRP3 inflammasome (NLRP3, ASC, caspase-1). [3]

Solubility Information

Solubility	DMSO: 100 mg/mL (153.21 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.5321 mL	7.6604 mL	15.3207 mL
5 mM	0.3064 mL	1.5321 mL	3.0641 mL
10 mM	0.1532 mL	0.766 mL	1.5321 mL
50 mM	0.0306 mL	0.1532 mL	0.3064 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Bian ZM, et al. Dual involvement of caspase-4 in inflammatory and ER stress-induced apoptotic responses in human retinal pigment epithelial cells. Invest Ophthalmol Vis Sci. 2009 Dec;50(12):6006-14.

Ariazi EA, et al. Estrogen induces apoptosis in estrogen deprivation-resistant breast cancer through stress responses as identified by global gene expression across time. Proc Natl Acad Sci U S A. 2011 Nov 22;108(47):18879-86.

Feng WQ, et al. IL-17A-mediated mitochondrial dysfunction induces pyroptosis in colorectal cancer cells and promotes CD8+T-cell tumour infiltration. J Transl Med. 2023 May 21;21(1):335.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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