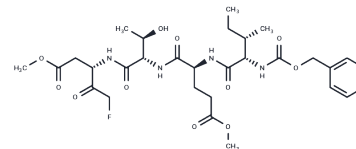


Z-IETD-FMK

Chemical Properties

CAS No. :	210344-98-2
Formula:	C30H43FN4O11
Molecular Weight:	654.68
Appearance:	no data available
Storage:	keep away from moisture Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	Z-IETD-FMK (Z-IE(OMe)TD(OMe)-FMK) is a selective caspase 8 inhibitor, which has cell permeable.
Targets(IC50)	Caspase
In vitro	Z-IETD-FMK, which inhibits the cleavage of caspase-8 and partially inhibits the cleavage of caspase-3 and PARP, prevents the execution of apoptosis in retinal cells exposed to different apoptotic stimuli. [1] Z-IETD-FMK (50 μ M) reduces ceramide-induced cardiomyocyte death and significantly inhibits the activation of caspase 3. [2] Inhibition of caspase-8 by Z-IETD-FMK affects the generation of activated/memory T cells and T cell cytokine production, and decreases NF-kappaB responses to TCR:CD3 engagement in T cell cultures. [3]
In vivo	In vivo, inhibition of caspase-8 by Z-IETD-FMK reduces memory/activated CD4 and CD8 T cells, and increases susceptibility to T. cruzi infection. [3] Z-IETD-FMK promotes neuronal survival and regeneration of injured retinal ganglion cells after CNS injuries. [4]
Kinase Assay	Proteasome assay: Exponentially growing cells on a 96-well clustered plate are treated with different concentrations of drugs or left untreated (control) for 6 hours. Proteasomes extracted with 0.5% NP40 buffer are mixed with equal amounts of samples in 100 μ L total volume, and then incubated with 25 μ mol/L of fluorogenic substrates (LRR- specific for trypsin-like activity, LLE-specific for caspase-like activity, and SUVY-specific for chymotrypsin-like activity) in black-bottom 96-well plates at 37°C. Fluorescence is monitored every 5 minutes at the wavelength of 360 nm (excitation) and 480 nm (emission).

Solubility Information

Solubility	Ethanol: < 1 mg/mL (insoluble or slightly soluble), H ₂ O: < 1 mg/mL (insoluble or slightly soluble), DMSO: 84 mg/mL (128.3 mM), < 1 mg/ml refers to the product slightly soluble or insoluble)
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A DRUG SCREENING EXPERT

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.5275 mL	7.6373 mL	15.2746 mL
5 mM	0.3055 mL	1.5275 mL	3.0549 mL
10 mM	0.1527 mL	0.7637 mL	1.5275 mL
50 mM	0.0305 mL	0.1527 mL	0.3055 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.

Reference

Liu X, Song X, Luan D, et al. Real-time in situ Visualizing the Sequential Activation of Caspase Cascade Using a Multi-color Au-Se Bonding Fluorescent Nanoprobe. Analytical Chemistry. 2019, 91(9): 5994-6002

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