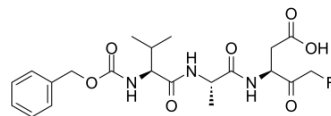


Z-VAD-FMK

Cat. No.:	HY-16658B
CAS No.:	161401-82-7
Molecular Formula:	C ₂₁ H ₂₈ FN ₃ O ₇
Molecular Weight:	453.46
Target:	Caspase
Pathway:	Apoptosis
Storage:	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (220.53 mM; Need ultrasonic)
H₂O : < 0.1 mg/mL (insoluble)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.2053 mL	11.0263 mL	22.0527 mL
	5 mM	0.4411 mL	2.2053 mL	4.4105 mL
	10 mM	0.2205 mL	1.1026 mL	2.2053 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.08 mg/mL (4.59 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: 2.08 mg/mL (4.59 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.08 mg/mL (4.59 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Z-VAD-FMK (Z-VAD(OH)-FMK) is a well-know pan caspase inhibitor, which does not inhibit ubiquitin carboxy-terminal hydrolase L1 (UCHL1) activity even at concentrations as high as 440 μM^[1].

IC₅₀ & Target

Caspase

In Vitro

Z-VAD-FMK (40 μM) reverses the apoptotic effect exerted by total saponin of Solanum lyratum Thunb (TSSLT) in Hela cells. HeLa cells are pretreated with Z-VAD-FMK (40 μM) for 30 min and exposed to TSSLT (6 μg/mL) for 48 h^[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay^[2]

Cell Line:	HeLa cells
Concentration:	40 μ M
Incubation Time:	Prtreated for 30 minutes
Result:	Prevented TSSLT-induced cell death. More than 80% cell survival was observed.

CUSTOMER VALIDATION

- Science. 2021 Mar 5;371(6533):eabb2224.
- Adv Sci. 2021 Feb 8.
- Redox Biol. 2020, 101807.
- Theranostics. 2020 Jun 19;10(17):7710-7729.
- Appl Mater Today. 2021, 101027.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. 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.

[2]. Liu HR, et al. Antiproliferative activity of the total saponin of Solanum lyratum Thunb in Hela cells by inducing apoptosis. Pharmazie. 2008 Nov;63(11):836-42.

Caution: Product has not been fully validated for medical applications. For research use only.

India Contact:

Life Technologies (India) Pvt. Ltd.
306, Aggarwal City Mall, Opposite M2K Pitampura, Delhi – 110034 (INDIA). Ph: +91-11-42208000, 42208111, 42208222, Mobile: +91-9810521400, Fax: +91-11-42208444
Email: customerservice@lifetechindia.com Website: www.lifetechindia.com