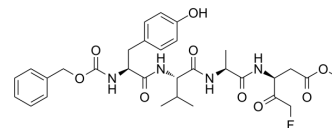


Z-YVAD-FMK

Cat. No.:	HY-P1009	
CAS No.:	210344-97-1	
Molecular Formula:	C ₃₁ H ₃₉ FN ₄ O ₉	
Molecular Weight:	630.66	
Sequence:	Z-Tyr-Val-Ala-Asp-FMK	
Sequence Shortening:	Z-YVAD-FMK	
Target:	Caspase	
Pathway:	Apoptosis	
Storage:	Powder	-80°C 2 years
		-20°C 1 year
	In solvent	-80°C 6 months
		-20°C 1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 250 mg/mL (396.41 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	1.5856 mL	7.9282 mL	15.8564 mL
		5 mM	0.3171 mL	1.5856 mL	3.1713 mL
		10 mM	0.1586 mL	0.7928 mL	1.5856 mL
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (3.30 mM); Clear solution				
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (3.30 mM); Clear solution				
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (3.30 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	Z-YVAD-FMK is a cell-permeable caspase-1 and -4 inhibitor with anti-inflammatory and anti-tumor activities ^[1] .
IC ₅₀ & Target	Caspase
In Vitro	Z-YVAD-FMK (100 μM; 24 hours) significantly downregulated the growth inhibition induced by butyrate in Caco-2 cells ^[1] .

Z-YVAD-FMK (20 μ M; pre 1 hour; 24 hours) attenuates the apoptotic induction of III-10 on both HepG2 and BEL-7402 cells, the apoptotic rate of -10 on HepG2 cells is reduced by Z-VAD-FMK from 19.88% to 8.34%, while that on BEL-7402 cells is reduced from 17.56% to 11.98%^[4].

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

Cell Viability Assay^[1]

Cell Line:	Caco-2 cells
Concentration:	0-100 μ M
Incubation Time:	24 hours
Result:	Inhibited Caco-2 cells growth.

Apoptosis Analysis^[1]

Cell Line:	BEL-7402 and HepG2 cells
Concentration:	20 μ M
Incubation Time:	Pre 1 hour; 24 hours
Result:	Induced a caspase-dependent apoptosis in cells.

CUSTOMER VALIDATION

- J Hazard Mater. 2021 Jan 13;411:125134.

See more customer validations on www.MedChemExpress.com

REFERENCES

- [1]. Li H1, et al. Aluminum hydroxide adjuvants activate caspase-1 and induce IL-1beta and IL-18 release. J Immunol. 2007 Apr 15;178(8):5271-6.
- [2]. Avivi-Green C, et al. Different molecular events account for butyrate-induced apoptosis in two human colon cancer cell lines. J Nutr. 2002 Jul;132(7):1812-8.

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

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