Data Sheet (Cat.No.TQ0146)

TargetMol
A DRUG SCREENING EXPERT

Ac-DEVD-CHO

Chemical Properties

CAS No.:	169332-60-9
Formula:	C20H30N4O11
Molecular Weight:	502.47
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	Ac-DEVD-CHO is a selective Caspase-3 inhibitor (Ki: 230 pM).
In vitro	The addition of Ac-DEVD-CHO significantly prevents SLNT-induced apoptosis (from 32.91% decreases to 15.88% while NC and Ac-DEVD-CHO groups are 6.45%, 7.77%, respectively) [2]. Ac-DEVD-CHO (10 μmol/L) partially blocks the effect of SIN-induced apoptosis and reduces the number of apoptotic nuclei. These effects of SIN are blocked by the caspase-3 inhibitor Ac-DEVD-CHO. Camptothecin (4 μM), a positive control, increases caspase-3 activity, which is also blocked by Ac-DEVD-CHO [3].
In vivo	Compare with model group, in CI group, the concentrations of serum BUN are decreased significantly at all time points after operation and those of Cr are decreased significantly at 6 hours, then restored to those of the sham group at 12 hours and 24 hours; the concentrations of serum TNF-α, IL-6 are decreased and those of IL-10 are elevated significantly at all time points. [TNF-α (μg/L) 6 hours: 436.2±64.2 vs. 653.6±8.9, 12 hours: 233.4±85.4 vs. 579.7±137.1, 24 hours: 151.0±90.3 vs. 551.0±119.8, IL-6 (μg/L) 6 hours: 1033.2±345.8 vs. 1 595.3±159.4, 12 hours: 366.3±68.3 vs. 1 330.7±249.8, 24 hours: 241.2±208.4 vs. 815.3±572.7, IL-10 (μg/L) 6 hours: 33.6±10.4 vs. 26.6±4.5, 12 hours: 37.2±5.0 vs. 24.5±4.3, 24 hours: 38.3±5.5 vs. 18.2±1.6, all P<0.05] [4].

Solubility Information

Solubility	Water: 50 mg/mL (99.51 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.99 mL	9.951 mL	19.902 mL
5 mM	0.398 mL	1.99 mL	3.98 mL
10 mM	0.199 mL	0.995 mL	1.99 mL
50 mM	0.04 mL	0.199 mL	0.398 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Garcia-Calvo M, et al.nhibition of human caspases by peptide-based and macromolecular inhibitors. J Biol Chem. 1998 Dec 4;273(49):32608-13.

2. Jinglin Wang, et al. A polysaccharide from Lentinus edodes inhibits human colon cancer cell proliferation and suppresses tumor growth in athymic nude mice. Oncotarget. 2017 Jan 3; 8(1): 610-623.

3. Long-gang He, et al. Sinomenine induces apoptosis in RAW 264.7 cell-derived osteoclasts in vitro via caspase-3 activation. Acta Pharmacol Sin. 2014 Feb; 35(2): 203-210.

4. Liu LX, et al. The effect of caspase-3 inhibitor on the concentrations of serum inflammatory cytokines in sepsis related acute kidney injury induced by peritoneal cavity infection in mice. Zhongguo Wei Zhong Bing Ji Jiu Yi Xue. 2010 Dec;22(12):736-9.

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