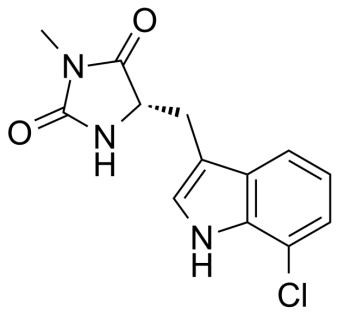
Necrostatin 2 S enantiomer

Cat. No.:	HY-14622B
CAS No.:	852391-20-9
Molecular Formula:	$C_{13}H_{12}ClN_3O_2$
Molecular Weight:	277.71
Target:	RIP kinase
Pathway:	Apoptosis
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (180.04 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.6009 mL	18.0044 mL	36.0088 mL
	5 mM	0.7202 mL	3.6009 mL	7.2018 mL
	10 mM	0.3601 mL	1.8004 mL	3.6009 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: ≥ 3 mg/mL (10.80 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 3 mg/mL (10.80 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 3 mg/mL (10.80 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Necrostatin 2 S enantiomer is the S enantiomer of Necrostatin 2. Necrostatin 2 is a potent necroptosis inhibitor, acts as a RIPK1 inhibitor lacking the IDO-targeting effect. Target: RIPK1 [4]Necrostatin 2 is a potent in vitro necroptosis inhibitors (exemplified by 1, EC50-0.05 uM) that also were efficacious in an animal model of ischemic stroke. Many Necroptosis inhibitor derivatives are designed for researchers.Necroptosis is a regulated caspase-independent cell death mechanism that results in morphological features resembling necrosis. It can be induced in a FADD-deficient variant of human Jurkat T cells treated with TNF-a. 5-(1H-Indol-3-ylmethyl)-2-thiohydantoins and 5-(1H-indol-3-ylmethyl)hydantoins were found to be potent necroptosis inhibitors (called necrostatins).

REFERENCES

[1]. Teng X, Keys H, Jeevanandam A, Structure-activity relationship study of [1,2,3]thiadiazole necroptosis inhibitors. Bioorg Med Chem Lett. 2007 Dec 15;17(24):6836-40.

[2]. Jagtap PG, Degterev A, Choi S, Structure-activity relationship study of tricyclic necroptosis inhibitors. J Med Chem. 2007 Apr 19;50(8):1886-95.

[3]. Teng X, Degterev A, Jagtap P, Structure-activity relationship study of novel necroptosis inhibitors. Bioorg Med Chem Lett. 2005 Nov 15;15(22):5039-44.

[4]. Takahashi N, et al. Necrostatin-1 analogues: critical issues on the specificity, activity and in vivo use in experimental disease models. Cell Death Dis. 2012 Nov 29;3:e437.

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