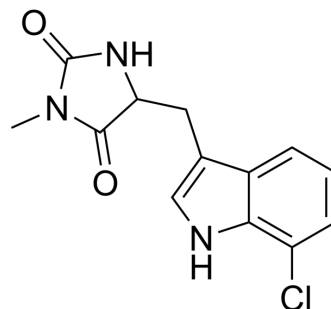


## Necrostatin 2 racemate

<b>Cat. No.:</b>	HY-14622A		
<b>CAS No.:</b>	852391-15-2		
<b>Molecular Formula:</b>	C <sub>13</sub> H <sub>12</sub> ClN <sub>3</sub> O <sub>2</sub>		
<b>Molecular Weight:</b>	277.71		
<b>Target:</b>	RIP kinase		
<b>Pathway:</b>	Apoptosis		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	1 year
		-20°C	6 months



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : ≥ 50 mg/mL (180.04 mM)  
 \* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		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

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
 Solubility: ≥ 3 mg/mL (10.80 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
 Solubility: ≥ 3 mg/mL (10.80 mM); Clear solution
- 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 racemate (Nec-1S), the [Necrostatin-1](#) (HY-15760) stable, is a potent and specific RIPK1 inhibitor lacking the IDO-targeting effect<sup>[1]</sup>.

#### IC<sub>50</sub> & Target

RIPK1

RIPK1

#### In Vitro

Necrostatin 2 racemate (Nec-1S) (1-100 μM; 1 h) potently inhibits RIPK1 autophosphorylation in a dose-dependent manner

[1].

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

#### In Vivo

Necrostatin 2 racemate (Nec-1S) (6 mg/kg; i.v.; once) protects against TNF-induced systemic inflammatory response syndrome (SIRS) without sensitization effect<sup>[1]</sup>.

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

Animal Model:	Female C57BL/6J WT mice, SIRS model <sup>[1]</sup>
Dosage:	0.6 mg/kg or 6 mg/kg
Administration:	Intravenous injection, once
Result:	Showed protective effect at 6 mg/kg.

## CUSTOMER VALIDATION

- Nat Commun. 2021 Jun 30;12(1):4050.
- Cell Death Dis. 2023 Jan 5;14(1):6.
- J Cachexia Sarcopenia Muscle. 2022 Jun 30.
- FASEB J. 2022 Dec;36(12):e22625.
- bioRxiv. 2023 Oct 2.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

[1]. 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.

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

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