Necrostatin-34

Cat. No.: HY-132203

CAS No.: 375835-43-1

Molecular Formula: $C_{18}H_{16}N_4O_2S_2$

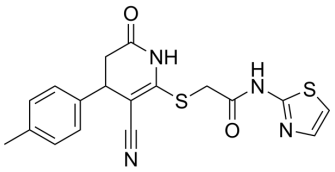
Molecular Weight: 384.48

Target: RIP kinase

Pathway: Apoptosis

Storage: 4°C, protect from light

* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (325.11 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.6009 mL	13.0046 mL	26.0092 mL
	5 mM	0.5202 mL	2.6009 mL	5.2018 mL
	10 mM	0.2601 mL	1.3005 mL	2.6009 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: ≥ 2.08 mg/mL (5.41 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (5.41 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Necrostatin-34 (Nec-34), a RIPK1 kinase inhibitor, stabilizes RIPK1 kinase in an inactive conformation by occupying a distinct binding pocket in the kinase domain[1].

IC_{50} & Target

RIPK1

In Vitro

Necrostatin-34 (Nec-34) exhibits IC_{50} values of 667 nM and 134 nM for TNFα in FADD def-Jurkat cells and L939 cells, respectively[1].

Necrostatin-34 (Nec-34, 10 μM) inhibits the dimerization-induced RIPK1 activation as examined by phosphorylation of Ser166 (p-S166) of RIPK1, a biomarker for RIPK1 activation[1].

Necrostatin-34 (Nec-34) may block TNFα-induced complex II formation by inhibiting the activation of RIPK1 kinase[1].

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

Western Blot Analysis[1]

Cell Line:	RIPK1 knockout L929 cells transfected with an expressing vector encoding an inducible and dimerizable RIPK1 fused with FKBP at the C-terminus.
Concentration:	10 μM.
Incubation Time:	30 min (and then 100 ng/mL TNFα was added for indicated periods of time).
Result:	Downregulated p-S166 levels.

REFERENCES

[1]. Huyan Meng, et al. Discovery of a cooperative mode of inhibiting RIPK1 kinase. Cell Discov. 2021 Jun 1;7(1):41.

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