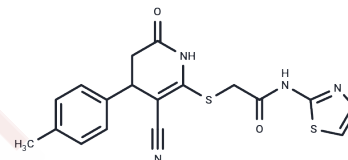


## Necrostatin-34

## Chemical Properties

CAS No. :	375835-43-1
Formula:	C <sub>18</sub> H <sub>16</sub> N <sub>4</sub> O <sub>2</sub> S <sub>2</sub>
Molecular Weight:	384.48
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Necrostatin-34 (2-[[3-cyano-4-(4-methylphenyl)-6-oxo-1,4-dihydro-3-thiazolyl]ethyl]amino) is a RIPK1 kinase inhibitor, stabilizing RIPK1 kinase in an inactive conformation by occupying a distinct binding pocket in the kinase domain.
Targets(IC50)	RIP kinase
In vitro	Necrostatin-34 (10 <sup>2</sup> μM) inhibits the dimerization-induced RIPK1 activation as examined by phosphorylation of Ser166 (p-S166) of RIPK1, a biomarker for RIPK1 activation. Necrostatin-34 may block TNFα-induced complex II formation by inhibiting the activation of RIPK1 kinase. Necrostatin-34 shows IC50 values of 667 nM and 134 nM for TNFα in FADD def-Jurkat cells and L939 cells, respectively.

## Solubility Information

Solubility	DMSO: 125 mg/mL (325.11 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 4 mg/mL (10.4 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
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
50 mM	0.052 mL	0.2601 mL	0.5202 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

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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