

TC13172

Chemical Properties

CAS No. : 2093393-05-4

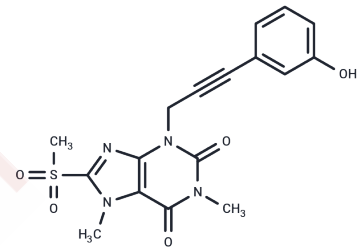
Formula: C17H16N4O5S

Molecular Weight: 388.4

Store at low temperature

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	TC13172 is a potent and covalent inhibitor that specifically targets the mixed lineage kinase domain-like protein (MLKL), exhibiting significant selectivity for MLKL over the closely related receptor-interacting serine/threonine kinase 1 (RIPK1) and RIPK3 at a concentration of 10 μM. TC13172 effectively inhibits necroptosis induced by the TSZ combination (TNF-α, a Smac mimetic, and Z-VAD-FMK) in HT-29 cells with a EC ₅₀ of 2 nM and, at 100 nM, blocks TSZ-induced oligomerization and plasma membrane translocation of MLKL.
Targets(IC ₅₀)	MLK
In vitro	TC13172 has anti-necroptotic activity against HT-29 cell lines with an EC ₅₀ value of 2 nM. [1]

Solubility Information

Solubility	DMSO: 20 mg/mL (51.49 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: 2 mg/mL (5.15 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

	1mg	5mg	10mg
1 mM	2.5747 mL	12.8733 mL	25.7467 mL
5 mM	0.5149 mL	2.5747 mL	5.1493 mL
10 mM	0.2575 mL	1.2873 mL	2.5747 mL
50 mM	0.0515 mL	0.2575 mL	0.5149 mL

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

Bo Yan, et al. Discovery of a new class of highly potent necroptosis inhibitors targeting the mixed lineage kinase domain-like protein. *ChemCommun (Camb)*. 2017 Mar 28;53(26):3637-3640.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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