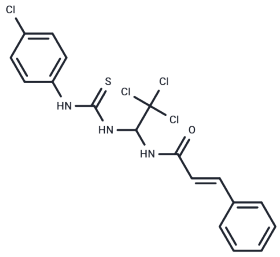
Data Sheet (Cat.No.T2417)

TargetMol

Sal003

Chemical Properties



CAS No. : 1164470-53-4

Formula: C18H15Cl4N3OS

Molecular Weight: 463.21

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	Sal003, an effective cell-permeable analog, inhibitis the eIF2α phosphatase.
Targets(IC50)	Apoptosis,PERK,Phosphatase
In vitro	In mouse embryonic fibroblasts, Sal003 induced depolymerization of polysaccharides by increasing the phosphorylation of eIF2a. Sal003 increased eIF2a phosphorylation by blocking eIF2a phosphodiesterase activity, and Sal003 enhanced the apoptotic signaling pathway induced by cytotoxicity by induced phosphorylation of eIF2α.
In vivo	In mouse embryonic fibroblasts, Sal003 induced depolymerization of polysaccharides by increasing the phosphorylation of eIF2a. Sal003 increased eIF2a phosphorylation by blocking eIF2a phosphodiesterase activity, and Sal003 enhanced the apoptotic signaling pathway induced by cytotoxicity by induced phosphorylation of eIF2α.
Kinase Assay	Catalytic assay: MEK5 protein isolated from the baculovirus expression system is used to measure kinase activity utilizing PKLight ATP Detection Reagent. The assay is performed using 15 nM GST-MEK5 and 0.75 μM ATP in assay buffer consisting of 25 mM Hepes, pH 7.5, 10 mM MgCl2, 50 mM KCl, 0.2% BSA, 0.01% CHAPS, 100 μM Na3VO4, 0.5 mM DTT and 1% DMSO in the presence of varying concentrations of BIX02189. The kinase reaction mixture is incubated for 90 minutes at room temperature followed by addition of 10 μL of ATP detection reagent for 15 minutes. The relative light unit (RLU) signal is measured and the RLU signals are converted to percent of control (POC) values for the determination of IC50 value.

Solubility Information

Solubility	DMSO: 46.3 mg/mL (99.95 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2 mg/mL (4.32 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1588 mL	10.7942 mL	21.5885 mL
5 mM	0.4318 mL	2.1588 mL	4.3177 mL
10 mM	0.2159 mL	1.0794 mL	2.1588 mL
50 mM	0.0432 mL	0.2159 mL	0.4318 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

Robert F, et al. Mol Biol Cell. 2006, 17(11), 4632-4644.
Costa-Mattioli M, et al. Cell. 2007, 129(1), 195-206.
Yahiro K, et al. Infect Immun. 2012, 80(5), 1803-1814.