

## Sal003

## Chemical Properties

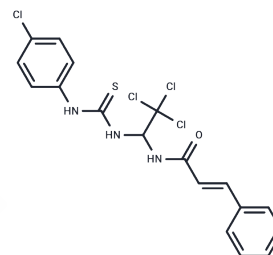
CAS No. : 1164470-53-4

Formula: C<sub>18</sub>H<sub>15</sub>Cl<sub>4</sub>N<sub>3</sub>O<sub>5</sub>

Molecular Weight: 463.21

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



## Biological Description

Description	Sal003, an effective cell-permeable analog, inhibits the eIF2 $\alpha$ phosphatase.
Targets(IC50)	Apoptosis,PERK,Phosphatase
In vitro	In mouse embryonic fibroblasts, Sal003 induced depolymerization of polysaccharides by increasing the phosphorylation of eIF2 $\alpha$ . Sal003 increased eIF2 $\alpha$ phosphorylation by blocking eIF2 $\alpha$ phosphodiesterase activity, and Sal003 enhanced the apoptotic signaling pathway induced by cytotoxicity by induced phosphorylation of eIF2 $\alpha$ .
In vivo	In mouse embryonic fibroblasts, Sal003 induced depolymerization of polysaccharides by increasing the phosphorylation of eIF2 $\alpha$ . Sal003 increased eIF2 $\alpha$ phosphorylation by blocking eIF2 $\alpha$ phosphodiesterase activity, and Sal003 enhanced the apoptotic signaling pathway induced by cytotoxicity by induced phosphorylation of eIF2 $\alpha$ .
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 $\mu$ M ATP in assay buffer consisting of 25 mM Hepes, pH 7.5, 10 mM MgCl <sub>2</sub> , 50 mM KCl, 0.2% BSA, 0.01% CHAPS, 100 $\mu$ M Na <sub>3</sub> VO <sub>4</sub> , 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 $\mu$ L 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 IC <sub>50</sub> 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)
------------	---

### 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.

### 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.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

**This product is for Research Use Only. Not for Human or Veterinary or Therapeutic Use**

Tel:781-999-4286 E\_mail:info@targetmol.com Address:36 Washington Street,Wellesley Hills,MA 02481