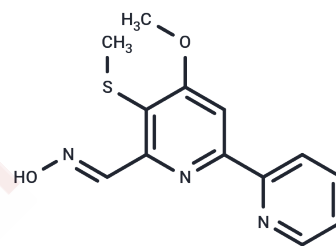


## Collismycin A

## Chemical Properties

CAS No. : 158792-24-6  
 Formula: C<sub>13</sub>H<sub>13</sub>N<sub>3</sub>O<sub>2</sub>S  
 Molecular Weight: 275.33  
 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	Collismycin A is a bacterial metabolite from <i>Streptomyces</i> with antibacterial, antiproliferative, and neuroprotective properties. It exhibits activity against various bacteria (MICs = 6.25-100 µg/ml) and fungi (MICs = 12.5-100 µg/ml). It inhibits proliferation of A549 lung, HCT116 colon, and HeLa cervical cancer cells (IC <sub>50</sub> s = 0.3, 0.6, and 0.3 µM, respectively) and NIH373 fibroblasts (IC <sub>50</sub> = 56.6 µM) but not MDA-MD-231 breast cancer cells (IC <sub>50</sub> > 100 µM). Collismycin A forms a complex with Fe(II) and Fe(III) in a 2:1 ratio, with iron ions inhibiting its antiproliferative effect on HeLa cells, an effect not observed with zinc, manganese, copper, or magnesium ions. Additionally, Collismycin A (1 µM) reduces apoptosis in zebrafish larvae brain regions by 44% in a model of neuronal cell death induced by all-trans retinoic acid.
Targets(IC <sub>50</sub> )	Apoptosis,Others,Antibacterial

## Solubility Information

Solubility	DMF: Soluble DMSO: Soluble Methanol: Soluble Ethanol: Soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	3.632 mL	18.160 mL	36.3201 mL
5 mM	0.7264 mL	3.632 mL	7.264 mL
10 mM	0.3632 mL	1.816 mL	3.632 mL
50 mM	0.0726 mL	0.3632 mL	0.7264 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.

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