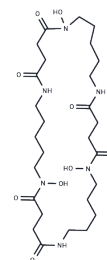


Nocardamine

Chemical Properties

CAS No. :	26605-16-3
Formula:	C ₂₇ H ₄₈ N ₆ O ₉
Molecular Weight:	600.7
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	Nocardamine is a ferrioxamine siderophore that has been found in <i>Streptomyces</i> and has diverse biological activities. 1,2,3,4 It chelates iron in a chrome azurol S assay (IC ₅₀ = 9.9 μM). 1 Nocardamine inhibits <i>M. smegmatis</i> and <i>M. bovis</i> biofilm formation (MIC = 10 μM for both), an effect that can be reversed by iron. 2 It is cytotoxic to T47D, SK-MEL-5, SK-MEL-28, and RPMI-7951 cancer cells (IC ₅₀ s = 6, 18, 12, and 14 μM, respectively). 3 Nocardamine also induces morphological changes in BM-N4 insect cells. 4
Targets (IC ₅₀)	Others

Solubility Information

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

	1mg	5mg	10mg
1 mM	1.6647 mL	8.3236 mL	16.6472 mL
5 mM	0.3329 mL	1.6647 mL	3.3294 mL
10 mM	0.1665 mL	0.8324 mL	1.6647 mL
50 mM	0.0333 mL	0.1665 mL	0.3329 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

- Lopez, J.A.V., Nogawa, T., Futamura, Y., et al. Nocardamin glucuronide, a new member of the ferrioxamine siderophores isolated from the ascamycin-producing strain *Streptomyces* sp. 80H647J. *Antibiot. (Tokyo)* 72(12)991-995(2019)
- Ishida, S., Arai, M., Niikawa, H., et al. Inhibitory effect of cyclic trihydroxamate siderophore, desferrioxamine E, on the biofilm formation of *Mycobacterium* species *Biol. Pharm. Bull.* 34(6)917-920(2011)
- Kalinovskaya, N.I., Romaneko, L.A., Irisawa, T., et al. Marine isolate *Citricoccus* sp. KMM 3890 as a source of a cyclic siderophore nocardamine with antitumor activity *Microbiol. Res.* 166(8)654-661(2011)
- Matsubara, K., Sakuda, S., Tanaka, M., et al. Morphological changes in insect BM-N4 cells induced by nocardamine *Biosci. Biotechnol. Biochem.* 62(10)2049-2051(1998)

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