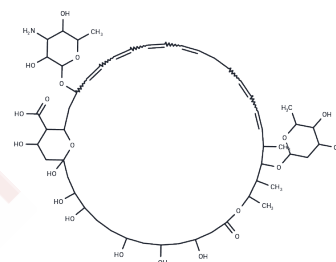


Nystatin A3

Chemical Properties

CAS No. :	62997-67-5
Formula:	C ₅₃ H ₈₅ NO ₂₀
Molecular Weight:	1056.24
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	Nystatin A3 (Fungicidin) , which belongs to the polyene group of antimycotics, is frequently used as a topical agent in the treatment of oro-pharyngeal candidosis.
Targets(IC50)	Others
In vitro	Nystatin results in a significant reduction in buccal epithelial cell adhesion of all six? Candida?species. [1] Nystatin is an antibiotic that increases the permeability of plasma membranes to small monovalent ions, including chloridion. Nystatin increases apical chloridion permeability to the point where transepithelial chloridion transport is limited by transport across the basolateral membrane of tracheal epithelial cells, which reflects primarily the activity of the cotransporter. Nystatin (400 units/ml) increases the basal level of transepithelial ³⁶ Cl flux approximately 1.5-fold and eliminates UTP stimulation of this flux. Nystatin treatment also abolishes UTP stimulation of saturable, basolateral [³ H]bumetanide binding, a measure of functioning Na-K-Cl cotransporters in these cells; isoproterenol stimulation of binding is only mildly inhibited by nystatin treatment. [2] Nystatin significantly enhances endostatin uptake by endothelial cells through switching endostatin internalization predominantly to the clathrin-mediated pathway. Nystatin-enhanced internalization of?endostatin also increases its inhibitory effects on endothelial cell tube formation and migration. [3]
In vivo	Nystatin combined with endostatin selectively enhances endostatin uptake and biodistribution in tumor blood vessels and tumor tissues but not in normal tissues of tumor-bearing mice, ultimately resulting in elevated antiangiogenic and antitumor efficacies of endostatin in vivo. [3] Liposomal?Nystatin, at doses as low as 2 mg/kg of body weight/day, protects neutropenic mice against Aspergillus-induced death in a statistically significant manner at the 50-day time point compared to either the no-treatment, the saline, or the empty-liposome group. [4]

Solubility Information

Solubility	Ethanol: <1 mg/mL, H ₂ O: <1 mg/mL, DMSO: 16 mg/mL (15.15 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.9468 mL	4.7338 mL	9.4675 mL
5 mM	0.1894 mL	0.9468 mL	1.8935 mL
10 mM	0.0947 mL	0.4734 mL	0.9468 mL
50 mM	0.0189 mL	0.0947 mL	0.1894 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

Ellepola AN, et al. Oral Microbiol Immunol. 1999 Dec;14(6):358-63.

Haas M, et al. Am J Physiol, 1994, 266(5 Pt 1), C1440-1452.

Chen Y, et al. Blood, 2011, 117(23), 6392-6403.

Wallace TL, et al. Antimicrob Agents Chemother, 1997, 41(10), 2238-2243.

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