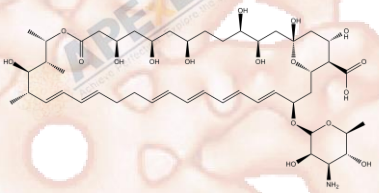
Product Data Sheet

Nystatin (Fungicidin)



Cat. No.: B1993
CAS No.: 1400-61-9
Formula: C47H75NO17
M.Wt: 926.09
Synonyms:
Target: Microbiology & Virology
Pathway: Antibiotic
Storage: Store at -20°C

Solvent & Solubility

In Vitro

≥30.45 mg/mL in DMSO; insoluble in EtOH; insoluble in H2O

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	1.0798 mL	5.3990 mL	10.7981 mL
5 mM	0.2160 mL	1.0798 mL	2.1596 mL
10 mM	0.1080 mL	0.5399 mL	1.0798 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary	antifungal antibiotic
IC_{50} & Target	

In Vitro

Cell Viability Assay

Cell Line:	Oral Candida species and human buccal epithelial cells
Preparation method:	The solubility of this compound in DMSO is > 30.5 mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below - 20 °C for several months.
Reacting conditions:	1 hr

	Applications:	The minimal inhibitory concentrations (μg/mL) of Nystatin for C. albicans, C. tropicalis, C. krusei, C. parapsilosis, C. glabrata and C. guilliermondii in RPMI broth were 0.78 ~ 1.56, 1.56 ~ 3.12, 3.12, 1.56 ~ 3.12, 0.78 ~ 1.56 and 0.39 ~ 0.78, respectively. Compared with the control group, Nystatin significantly reduced adhesion of 6 Candida species to buccal epithelial cells. However, the adhesion of C. albicans isolates was least affected by Nystatin treatment, which was significantly different from that of the non-albicans species.
In Vivo	**Animal experiment**	
	Animal models:	Aspergillus-infected, neutropenic mice
	Dosage form:	2, 4, 6 and 8 mg/kg/day; i.v.
	Applications:	At a dose as low as 2 mg/kg/day, Liposomal Nystatin significantly protected neutropenic mice from Aspergillus-induced death compared to either the no-treatment, the saline or the empty-liposome group. Liposomal Nystatin-treated mice showed no evidence of Aspergillus infection either at day 5 in all of the treatment groups or at day 52 in the 8 mg/kg/day liposomal-Nystatin treatment group.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

1. Wang H, Liu W, et al. "Inhibitor analysis revealed that clathrin-mediated endocytosis is involed in cellular entry of type III grasscarp reovirus." Virol J. 2018 May 24;15(1):92.PMID:29793525

See more customer validations on www.apexbt.com.

References

[1]. Ellepola AN, Panagoda GJ, Samaranayake LP. Adhesion of oral Candida species to human buccal epithelial cells following brief exposure to nystatin. Oral Microbiol Immunol. 1999 Dec;14(6):358-63.

[2]. Wallace TL, Paetznick V, Cossum PA, Lopez-Berestein G, Rex JH, Anaissie E. Activity of liposomal nystatin against disseminated Aspergillus fumigatus infection in neutropenic mice. Antimicrob Agents Chemother. 1997 Oct;41(10):2238-43.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for

long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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