Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Nystatin

Catalog No: tcsc1235

Available Sizes

Size: 200mg

Size: 500mg

Specifications

CAS No:
1400-61-9

Formula:
$C_{47}H_{75}NO_{17}$

Pathway:
Anti-infection

Target:
Fungal

Purity / Grade:
>98%

Solubility:
DMSO : 50 mg/mL (53.99 mM; Need ultrasonic)

Observed Molecular Weight:
926.09

Product Description

Nystatin is a polyene antifungal antibiotic effective against yeast and mycoplasma.

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

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basal level of transepithelial 36Cl 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].