

PRODUCT INFORMATION



Natamycin

Item No. 11634

CAS Registry No.: 7681-93-8
Formal Name: (5R,7R,24S)-22R-[(3S-amino-3,6-dideoxy-β-D-mannopyranosyl)oxy]-1R,3S,26S-trihydroxy-12R-methyl-10-oxo-6,11,28-trioxatricyclo[22.3.1.05,7]octacosane-8E,14E,16E,18E,20E-pentaene-25R-carboxylic acid

Synonyms: Antibiotic A 5283, CL 12,625, Delvocid, E 235, Mycophyt, Myprozine, Pimaricin, Synogil, Tenneccetin

MF: C₃₃H₄₇NO₁₃

FW: 665.7

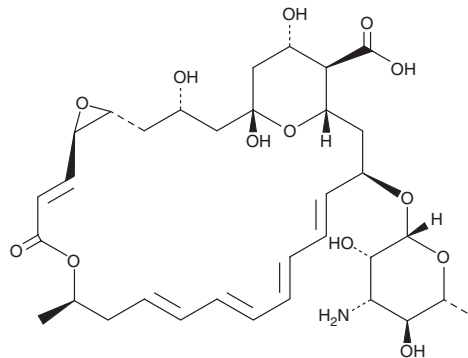
Purity: ≥95%

UV/Vis.: λ_{max}: 219, 290, 303, 317 nm

Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Natamycin is supplied as a crystalline solid. A stock solution may be made by dissolving the natamycin in the solvent of choice, which should be purged with an inert gas. Natamycin is soluble in organic solvents such as methanol and DMSO. The solubility of natamycin in these solvents is approximately 1 mg/ml.

Description

Natamycin is a naturally occurring macrolide polyene antifungal agent produced during fermentation by the bacterium *S. natalensis*, commonly found in soil. With minimal inhibitory concentrations ranging from 4-64 μM, natamycin is used to treat fungal infections, including *Candida*, *Aspergillus*, *Cephalosporium*, *Fusarium*, and *Penicillium*.¹⁻³ Natamycin blocks fungal growth by binding specifically to ergosterol with an apparent affinity of ~100 μM, but it does not permeabilize cell membranes as other polyene antibiotics are known to do.² Natamycin is also used in the food industry as a preservative.⁴

References

1. Lalitha, P., Vijaykumar, R., Prajna, N.V., et al. In vitro natamycin susceptibility of ocular isolates of *Fusarium* and *Aspergillus* species: Comparison of commercially formulated natamycin eye drops to pharmaceutical-grade powder. *J. Clin. Microbiol.* **46**(10), 3477-3478 (2008).
2. te Welscher, Y.M., ten Napel, H.H., Balagué, M.M., et al. Natamycin blocks fungal growth by binding specifically to ergosterol without permeabilizing the membrane. *J. Biol. Chem.* **283**(10), 6393-6401 (2008).
3. Dong, X.-H., Gao, W.-J., and He, X.-P. Antifungal efficacy of natamycin in experimental *fusarium solani* keratitis. *Int. J. Ophthalmol.* **5**(2), 143-146 (2012).
4. de Vries, R.P., de Lange, E.S., Wösten, H.A.B., et al. Control and possible applications of a novel carrot-spoilage basidiomycete, *Fibulorhizoctonia psychrophila*. *Antonie Van Leeuwenhoek* **93**(4), 407-413 (2008).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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