

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[22.3.1.0^{5,7}]octacosan-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

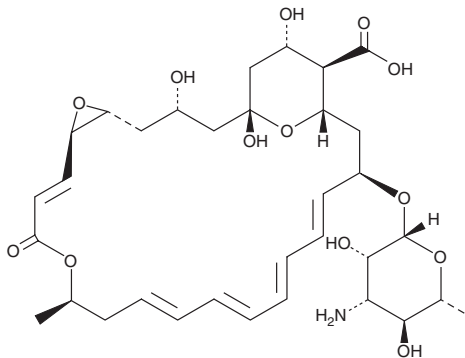
Purity: ≥95%

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 tetraene macrolide that has been found in *S. natalensis* and has fungicidal activities.¹⁻³ It is active against *Fusarium*, *A. flavus*, and *A. fumigatus* clinical isolates (MIC₅₀s = 4, 32, and 2 µg/ml, respectively), and the plant pathogenic fungi *B. cinerea* and *P. expansum* when used at a concentration of 2 mg/L.^{1,2} Natamycin (100 and 200 mg/L, respectively) inhibits *B. cinerea*-induced gray mold disease in grapes and *P. expansum*-induced blue mold disease in jujube fruit.² It reduces ulceration, edema, swelling, iritis, white blood cell accumulation, and loss of corneal transparency, as well as prevents *F. solani*-induced ocular keratitis, in a rabbit model of fungal keratitis.³ Formulations containing natamycin have been used in the treatment of fungal blepharitis, conjunctivitis, and keratitis, and as fungicides in agricultural settings and as food additives.

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. He, C., Zhang, Z., Li, B., et al. Effect of natamycin on *Botrytis cinerea* and *Penicillium expansum*—Postharvest pathogens of grape berries and jujube fruit. *Postharvest Bio. Technol.* **151**, 134-141 (2019).
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).

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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