

PRODUCT INFORMATION



Mandimycin Item No. 43445

Formal Name: (1S,3R,4R,7R,11R,15S,16S,17R,18S,19E,23E,25E,27E,29E,31E,33R,35S,36R,37S)-33-(((2R,3S,4S,5S,6R)-4-amino-3,5-dihydroxy-6-methyltetrahydro-2H-pyran-2-yl)oxy)-1,3,4,7,11,37-hexahydroxy-17-(((2R,4R,5R,6S)-4-hydroxy-5-(((2S,4R,5S,6S)-5-hydroxy-4-methoxy-6-methyltetrahydro-2H-pyran-2-yl)oxy)-6-methyltetrahydro-2H-pyran-2-yl)oxy)-15,16,18-trimethyl-9,13-dioxo-14,39-dioxabicyclo[33.3.1]nonatriaconta-19,23,25,27,29,31-hexaene-36-carboxylic acid

MF: C₆₀H₉₅NO₂₃

FW: 1,198.4

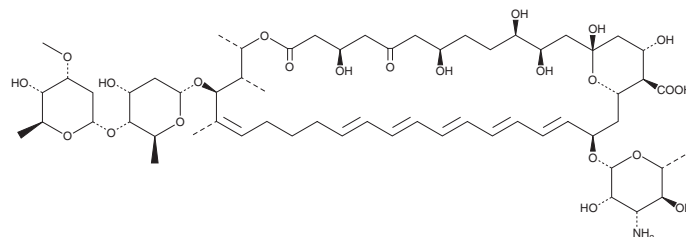
Purity: ≥90%

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years

Item origin: Bacteria/*Streptomyces netropsis*



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

Laboratory Procedures

Mandimycin is supplied as a solid. A stock solution may be made by dissolving the mandimycin in the solvent of choice, which should be purged with an inert gas. Mandimycin is slightly soluble (0.1-1 mg/ml) in DMSO.

Description

Mandimycin is a polyketide synthase-derived polyene macrolide that has been found in *S. netropsis* and has antifungal activity¹. It is active against several multidrug-resistant strains of fungi, including *C. albicans*, *C. neoformans*, *A. fumigatus*, and *C. glabrata* (MICs = 0.125-2 µg/ml). Unlike amphotericin B (Item No. 11636), mandimycin does not bind to ergosterol and instead binds to phospholipids with apparent K_d values of 36.8, 28.2, 36.5, 30.9, and 21.9 µM for phosphatidylcholine (PC), phosphatidylglycerol (PG), phosphatidylserine (PS), phosphatidylethanolamine (PE), and phosphatidylinositol (PI), respectively, as well as cardiolipin and sphingomyelin (apparent K_d s = 63.6 and 50 µM, respectively). It induces potassium ion efflux in *C. albicans* in a concentration-dependent manner. *In vivo*, mandimycin (10 mg/kg) increases survival and decreases kidney fungal burden in a neutropenic disseminated mouse model of multidrug-resistant candidiasis.

Reference

1. Deng, Q., Li, Y., He, W., *et al.* A polyene macrolide targeting phospholipids in the fungal cell membrane. *Nature* **640**(8059), 743-751 (2025).

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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