Product Name: **Amphotericin B** **Catalog No.: 6930** **Batch No.: 1**

CAS Number: 1397-89-3

IUPAC Name: (1*R*,3*S*,5*R*,6*R*,9*R*,11*R*,15*S*,16*R*,17*R*,18*S*,19*E*,21*E*,23*E*,25*E*,27*E*,29*E*,31*E*,33*R*,35*S*,36*R*,37*S*)-33-[(3-Amino-3,6-dideoxy-β-D-mannopyranosyl)oxy]-1,3,5,6,9,11,17,37-octahydroxy-15,16,18-trimethyl-13-oxo-14,39-dioxabicyclo[33.3.1] nonatriaconta-19,21,23,25,27,29,31-heptaene-36-carboxylic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{47}H_{73}NO_{17}.3½H_2O$

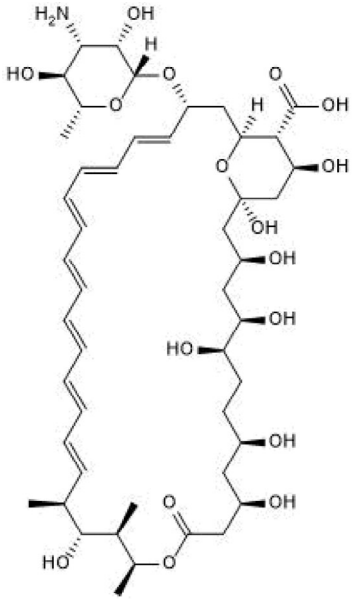
Batch Molecular Weight: 987.14

Physical Appearance: Yellow solid

Solubility: DMSO to 20 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 92.4% purity

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	57.19	8.17	1.42
Found	57.2	7.99	1.57

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Description:

Amphotericin B forms nonselective monovalent ion channels within lipid bilayers. Amphotericin B binds ergosterol in the cell membrane. Antifungal and antiprotozoal. Amphotericin B can be used in a small molecule cocktail to generate 3D culture of lung alveolar cells (see below protocol). For more information about how Amphotericin B may be used, see our protocol: 3D Culture of Lung Alveolar Cells

Physical and Chemical Properties:

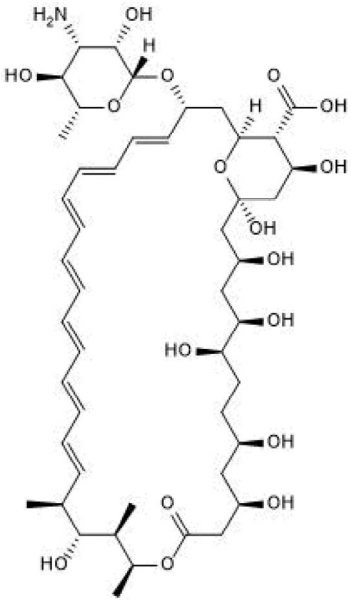
Batch Molecular Formula: $C_{47}H_{73}NO_{17}.3½H_2O$

Batch Molecular Weight: 987.14

Physical Appearance: Yellow solid

Minimum Purity: ≥90%

Batch Molecular Structure:



Storage: Store at -20°C. This product is packaged under an inert atmosphere.

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

DMSO to 20 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Muruglia *et al* (2019) Small-molecule ion channels increase host defences in cystic fibrosis airway epithelia. Nature. ***567*** 405. PMID: 30867598.

Lewis (2011) Current concepts in antifungal pharmacology. Mayo Clin.Proc. ***86*** 805. PMID: 21803962.

Gallis *et al* (1990) Amphotericin B: 30 years of clinical experience. Rev.Infect.Dis. ***12*** 308. PMID: 2184499.