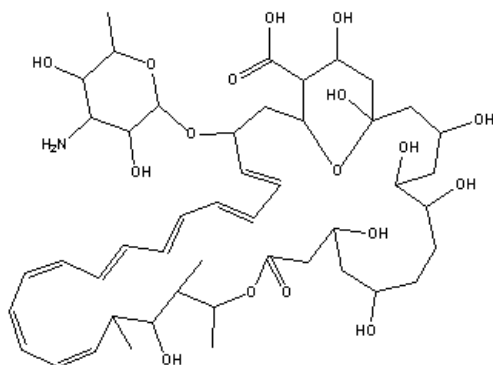


Catalog Number: 195043, 1672346, 1672348

## Amphotericin B

### Structure:



**Molecular Formula:** C<sub>47</sub>H<sub>73</sub>NO<sub>17</sub>

**Molecular Weight:** 924.11

**CAS # :** 1397-89-3

**Synonyms:** Fungizone; Amphozone; Fungilin; Ampho-Moronal

**Source:** *Streptomyces* species.

**Physical Description:** Yellow to orange powder. Depending on pH, amphotericin in solution is yellow to dark yellow.

**Description:** An antifungal agent. This product contains no animal-derived components.

**pK<sub>a</sub> values:** 5.5 and 10.0.<sup>3</sup>

**Solubility:** Soluble in acidic water (pH 2) or basic water (pH 11) (about 0.1 mg/ml). Water solubility can be increased with the addition of deoxycholic acid, sodium salt (increasing solubility with increasing concentration of deoxycholic acid). Soluble in Dimethylformamide (DMF) (2 to 4 mg/ml), DMF + 1 M HCl (3:1) (60 to 80 mg/ml), DMSO (30 to 40 mg/ml), propylene glycol; slightly soluble in methanol and methyl alcohol; insoluble in water, anhydrous alcohol, ether, benzene, and toluene. Solutions are stable for long periods between pH 4 and 10.<sup>1</sup>

Cat# 16723 is a concentrated solution of amphotericin at neutral to slightly basic pH, which is slightly cloudy due to the low solubility of amphotericin in aqueous buffer. The concentrated solution is stable at 2-8°C for up to 3 weeks. When diluted to the working concentration (see below for recommended concentration), the amphotericin will completely go into solution. Diluted amphotericin is stable for up to 7 days in culture at 37°C. Store diluted solutions aliquoted at -20°C or below for up to approximately 6 months.

Sterilization of solutions should be by filtration through teflon membrane filters; Amphotericin B should not be gamma irradiated or autoclaved.

### Formulation (for 16723):

Component	mg/liter	Mol. Wt.	Mol. (mM)
Amphotericin B	0.25	924.1	0.00027
Sodium Deoxycholate	250	414.6	0.60

**Description:** An antimicrobial/antifungal agent effect against yeast and other fungi at a recommended concentration of 2.5 ug/L (prepared solution use 10 ml/L). It is a mixture of polyenes. It interrupts cell membrane permeability by binding sterols resulting in the loss of low molecular weight compounds from the cell. Amphotericin B may be toxic to some insect cell types. It is inactive against bacteria, rickettsia and viruses. It is typically stable in media at 37°C in the dark for approximately 3 days.<sup>21</sup>

### Availability:

Catalog Number	Description	Size
195043	Amphotericin B, powder	100 mg 250 mg

		500 mg 1 g 5 g
1672346 1672348	Amphotericin B Solution, 250 ug/ml; formulated with deoxycholate and prepared in water for increased solubility, pH = 7-8	20 ml 50 ml

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