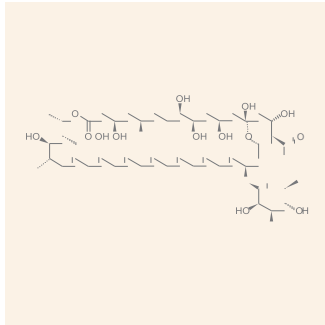


Amphotericin B

Molecular Structure



Product Description

Amphotericin B, a polyene macrolide, is an antifungal produced by *Streptomyces nodosus*. Congeners of the polyenes consist of four to seven conjugated double bonds linked to a cyclic ester. Amphotericin B, in particular, contains a mycosamine linked to the cyclic ester through a glycosidic bond.

These lipophilic antibiotics actively bind sterols, predominantly ergosterol, a component of the fungal membrane. Binding to ergosterol results in the formation of membrane channels, or pores, and the leakage of ions. Polyenes are fungistatic, inhibiting cell growth, to all fungi with the exception of fungi deficient in ergosterol as a result of its replacement with sterol precursors.

Amphotericin B is insoluble in water at physiological pH. As a result, the bile salt deoxycholate is used as a solubilizing agent.

The normal working concentration of amphotericin B is 2.5 µg/mL, and it may be paired with Penicillin/Streptomycin as a broad-spectrum treatment. When used to treat severe contamination of fungi and yeast, the concentration can be increased up to 4 µg/mL for several subcultures.

Amphotericin B is stable for up to 7 days in culture at 37°C. At a storage temperature of 2°C to 8°C, Amphotericin B is stable for up to 3 weeks. For optimum stability, keep frozen and avoid multiple freeze-thaw cycles.

Product Specification

Mode of Action:	Binds sterols, particularly ergosterol, forming pores in the fungal cytoplasmic membrane and causing leakage of cellular ions
Conferred Resistance:	Ergosterol deficiency
Spectrum:	Fungi

Molecular weight:	923.49
Microbiological Potency:	250 µg/mL
Formula:	C47H73NO17
Appearance:	Yellow solution
Working Concentration:	2.5 µg/mL, under normal working conditions
Storage and Stability:	Frozen - 25°C to -15°C Protect from light Avoid multiple freeze-thaw cycles

Ordering information

Cat. No.	Description	Unit Size	Qty/Pk
30-003-CF	Amphotericin B, liquid 250 µg/mL solubilized	50 mL	6

For Research use only. Not approved for human or veterinary use, for application to humans or animals, or for use in clinical or *in vitro* procedures.

Support

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