PhytoTechnology Laboratories®



Helping to Build a Better Tomorrow through Plant Science™

Product Information Sheet

A119 Amphotericin B

Synonyms: N/A

CAS: 1397-89-3 Formula: $C_{47}H_{73}NO_{17}$ Mol. Weight: 924.09

Properties

Form: Powder

Appearance: Yellow Powder

Application: Plant Tissue Culture Antimycotic

Solubility: Soluble in DMSO

Storage Temp: 2 to 6 °C

Other Notes: Protect from Light.

Application Notes

Amphotericin B is a polyene antimycotic derived from *Streptomyces nodosus*. Its mode of action is to disrupt the osmosis of the cell membrane by binding to fungal and bacterial ergosterols causing intercellular potassium and magnesium to leak out of target cells.²⁻⁴ Amphotericin B is effective against many fungi, yeasts and molds, e.g., *Absidia* spp., *Aspergillus* spp., *Basidiobolus* spp., *Candida* spp., etc.²

Minimum inhibitory concentration (MIC) of amphotericin B has been reported for many fungi, yeasts and molds. MIC for *Candida* spp. range from 0.1 to 2 mg/L, *Aspergillus niger* is 1 mg/L, *Fusarium* sp. is 1 to greater than 4 mg/L, *Bipolaris* sp. is 0.5 to 1 mg/L, etc.⁴

Please Note: It is the sole responsibility of the purchaser to determine the appropriateness of this product for the specific plants that are being cultured and applications that are being used.

References

- 1. Merck 13, 590
- 2. *Martindale: The Complete Drug Reference*, 35th ed., Paul S. Blake, Ed. (Royal Pharmaceutical Society, 2007), p. 471.
- 3. Brajtburg, Janina, William G. Powderly, George S. Kobayashi, and Gerald Medoff. 1990. Amphotericin B: current understanding of mechanisms of action. *Antimicrobial Agents and Chemotheraphy*. Vol. 34(2). Pp. 183-188.
- 4. Ellis, David. 2002. Amphotericin B: spectrum and resistance. *Journal of Antimicrobial Chemotherapy*. Vol 49. Suppl S1, Pp. 7-10.

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