

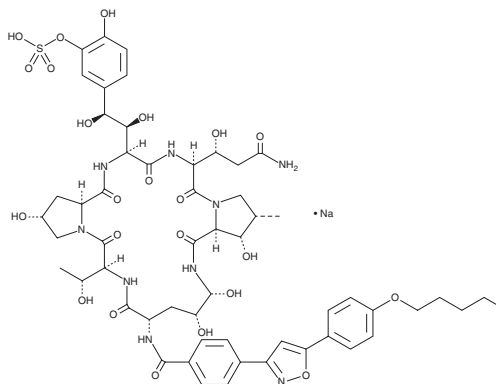
PRODUCT INFORMATION



Micafungin (sodium salt)

Item No. 18009

CAS Registry No.: 208538-73-2
Formal Name: 1-[(4R,5R)-4,5-dihydroxy-N²-[4-[5-[4-(pentyloxy)phenyl]-3-isoxazolyl]benzoyl]-L-ornithine]-4-[(4S)-4-hydroxy-4-[4-hydroxy-3-(sulfoxy)phenyl]-L-threonine]- pneumocandin A₀, monosodium salt
Synonyms: FK463, Mycamine
MF: C₅₆H₇₁N₉O₂₃S • Na
FW: 1,293.3
Purity: ≥95%
UV/Vis.: λ_{max}: 270 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Micafungin (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the micafungin (sodium salt) in the solvent of choice, which should be purged with an inert gas. Micafungin (sodium salt) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of micafungin (sodium salt) in these solvents is approximately 10 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of micafungin (sodium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of micafungin (sodium salt) in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Micafungin is an echinocandin antifungal that inhibits 1,3-β-D-glucan synthesis.^{1,2} It has fungicidal activity against virtually all species of *Candida*, including those resistant to fluconazole, and is fungistatic against *Aspergillus* spp.^{3,4}

References

1. Bormann, A.M. and Morrison, V.A. Review of the pharmacology and clinical studies of micafungin. *Drug. Des. Devel. Ther.* **3**, 295-302 (2009).
2. Carillo-Muñoz, A.J., Giusiano, G., Ezkurra, P.A., *et al.* Antifungal agents: Mode of action in yeast cells. *Rev. Esp. Quimioter.* **19(2)**, 130-139 (2006).
3. Pfaller, M.A., Boyken, L., Hollis, R.J., *et al.* *In vitro* susceptibility of clinical isolates of *Aspergillus* spp. to anidulafungin, caspofungin, and micafungin: A head-to-head comparison using the CLSI M38-A2 broth microdilution method. *J. Clin. Microbiol.* **47(10)**, 3323-3325 (2009).
4. Vehreschild, J.J. and Cornely, O.A. Micafungin sodium, the second of the echinocandin class of antifungals: Theory and practice. *Future Microbiol.* **1(2)**, 161-170 (2006).

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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