

Micafungin PRODUCT DATA SHEET

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Product Name: Micafungin

Product Number: M044

CAS Number: 235114-32-6

Molecular Formula: $C_{56}H_{71}N_9O_{23}S$

Molecular Weight: 1270.3

Appearance: White solid

Storage Conditions: -20°C

Description: Micafungin is a semi-synthetic cyclic lipopeptide belonging to the

echinocandin class that was reported in 1999 from Fujisawa in Japan. Unlike other marketed semi-synthetic derivatives in this class, micafungin is not derived from echinocandin but rather from FR901379 which contains a

phenolic sulfate to enhance aqueous solubility, a serious limitation in the class.

Micafungin is soluble in ethanol, methanol, DMF or DMSO. Moderate water

solubility.

Mechanism of Action: Micafungin inhibits the synthesis of β -(1,3)-D-glucan, an essential component

of the cell wall of susceptible fungi and is extensively referenced in the

literature with over 700 citations.

References: FK463, a novel water-soluble echinocandin lipopeptide: Synthesis and

antifungal activity. Tomishima M. et al. J. Antibiot. 1999, 52, 674.

In vitro activities of a new lipopeptide antifungal agent, FK463, against a variety of clinically important fungi. Tawara S. et al. Antimicrob. Agents

Chemother. 2000, 44, 57.

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