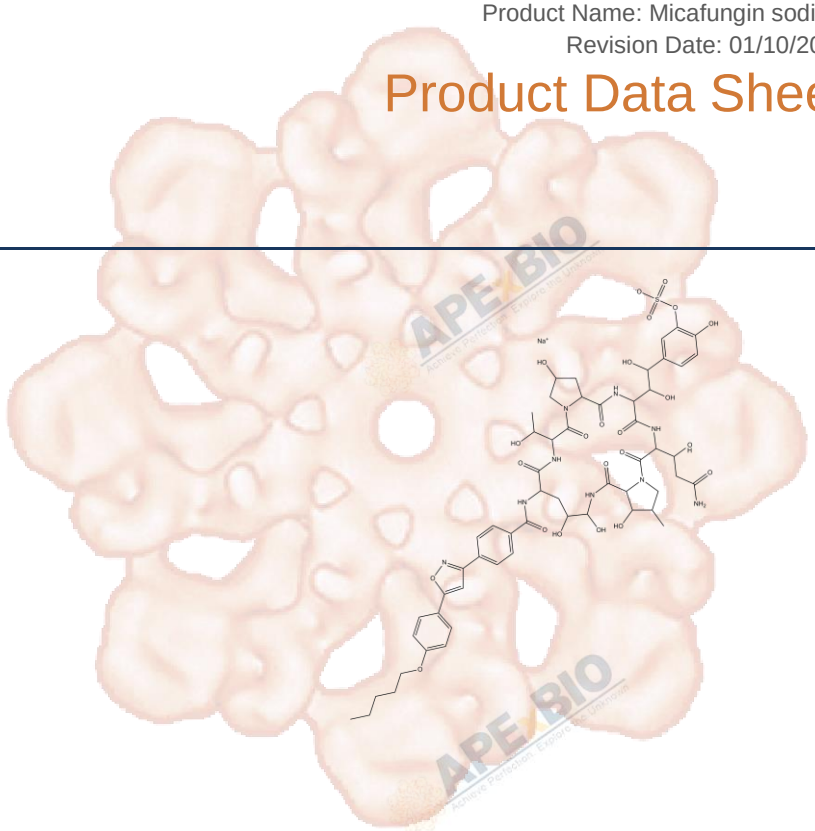
Product Data Sheet

Micafungin sodium



Cat. No.:	A3606
CAS No.:	208538-73-2
Formula:	C56H70N9NaO23S
M.Wt:	1292.26
Synonyms:	FK 463;Funguard;Mycamine
Target:	Others
Pathway:	β(1,3)-D-Glucan Synthase
Storage:	Store at -20°C

Solvent & Solubility

In Vitro

≥64.66 mg/mL in DMSO; insoluble in EtOH; ≥17.5 mg/mL in H2O with gentle warming and ultrasonic

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	0.7738 mL	3.8692 mL	7.7384 mL
5 mM	0.1548 mL	0.7738 mL	1.5477 mL
10 mM	0.0774 mL	0.3869 mL	0.7738 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary	Inhibitor of β-(1,3)-D-glucan synthesis;fungicide
IC_{50} & Target	

In Vitro

Cell Viability Assay

Preparation method：	This compound is soluble in water. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	10 mg/mL; 24 hrs

	Applications:	Micafungin decreased the expression of biofilm encoding genes for alginate and pellicles (algC and pelC, respectively).
In Vivo	**Animal experiment**	
	Animal models:	A mouse model of septic Aspergillus fumigatus (A. fumigatus) infection
	Dosage form:	0.1, 0.32 and 1 mg/kg; s.c.; q.d.
	Applications:	In a mouse model of septic A. fumigatus infection, Micafungin (0.1 mg/kg) increased the survival rate of mice to 20%. When Micafungin (0.1 mg/kg) was combined with KB425796-C (32 mg/kg), the survival rate of mice increased to 100% in the 31-day post-infection period. For non-treated mice, they survived for only 6 days.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

[1]. Bazzi W, Sabra A, Zahreddine L, et al. The inhibitory effect of micafungin on biofilm formation by Pseudomonas aeruginosa. Biofouling, 2013, 29(8): 909-915.

[2]. Kai H, Yamashita M, Nakamura I, et al. Synergistic antifungal activity of KB425796-C in combination with micafungin against Aspergillus fumigatus and its efficacy in murine infection models. J Antibiot (Tokyo), 2013, 66(8): 479-484.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

APExBIO Technology

www.apexbt.com

7505 Fannin street, Suite 410, Houston, TX 77054.

Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: info@apexbt.com