# **Product** Data Sheet

## **Fenticonazole Nitrate**

Cat. No.: HY-B0359 CAS No.: 73151-29-8 Molecular Formula:  $C_{24}H_{21}Cl_2N_3O_4S$ 

Molecular Weight: 518.41

Fungal; Antibiotic Target: Pathway: Anti-infection

Storage: 4°C, sealed storage, away from moisture

\* In solvent: -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

### **SOLVENT & SOLUBILITY**

DMSO : ≥ 100 mg/mL (192.90 mM) In Vitro

\* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	1.9290 mL	9.6449 mL	19.2898 mL
	5 mM	0.3858 mL	1.9290 mL	3.8580 mL
	10 mM	0.1929 mL	0.9645 mL	1.9290 mL

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

In Vivo

- 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (4.82 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE- $\beta$ -CD in saline) Solubility: ≥ 2.5 mg/mL (4.82 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (4.82 mM); Clear solution

## **BIOLOGICAL ACTIVITY**

Description	Fenticonazole Nitrate is an antifungal imidazole ring derivative. Fenticonazole Nitrate operates via hindering ergosterol integration, and sequentially destructing the cytoplasmatic outer membrane. Fenticonazole Nitrate is effective against Gram-positive bacteria, mycoses, and vaginal candidiasis <sup>[1][2]</sup> .
In Vitro	Fenticonazole is an azole antifungal drug, used locally as the nitrate in the treatment of vulvovaginal candidiasis. It is active against a range of organisms including dermatophyte pathogens. Malassezia furfur, and Candida albicans <sup>[2]</sup> .

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MCE has not independently confirmed the accuracy of these methods. They are for reference only.

#### **CUSTOMER VALIDATION**

• Pharmacol Res. 2021 Aug 27;105860.

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#### **REFERENCES**

- [1]. Fernandez-Alba, J., et al., Fenticonazole nitrate for treatment of vulvovaginitis: efficacy, safety, and tolerability of 1-gram ovules, administered as ultra-short 2-day regimen. J Chemother, 2004. 16(2): p. 179-86.
- [2]. Rofida Albash, et al. Ultra-deformable liposomes containing terpenes (terpesomes) loaded fenticonazole nitrate for treatment of vaginal candidiasis: Box-Behnken design optimization, comparative ex vivo and in vivo studies. Drug Deliv. 2020 Dec;27(1):1514-1523.

Caution: Product has not been fully validated for medical applications. For research use only.

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