# Butoconazole

**Cat. No.:** HY-B0293A

**CAS No.:** 64872-76-0

**Molecular Formula:** $C_{19}H_{17}Cl_3N_2S$

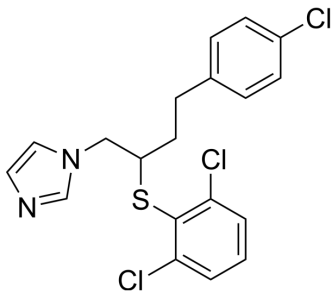
**Molecular Weight:** 411.78

**Target:** Fungal

**Pathway:** Anti-infection

**Storage:** 4°C, protect from light

* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)




## SOLVENT & SOLUBILITY

**In Vitro**

DMSO : 125 mg/mL (303.56 mM; Need ultrasonic)

| Preparing Stock Solutions | Solvent / Mass / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|---|
| | 1 mM | 2.4285 mL | 12.1424 mL | 24.2848 mL |
| | 5 mM | 0.4857 mL | 2.4285 mL | 4.8570 mL |
| | 10 mM | 0.2428 mL | 1.2142 mL | 2.4285 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: ≥ 2.08 mg/mL (5.05 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (5.05 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (5.05 mM); Clear solution

## BIOLOGICAL ACTIVITY

**Description**

Butoconazole, an imidazole antifungal agent, is active against Candida spp. and effective against vaginal infections due to Candida albicans. Butoconazole is presumed to function as other imidazole derivatives via inhibition of steroid synthesis[1][2].

**In Vitro**

Imidazoles generally inhibit the conversion of lanosterol to ergosterol, resulting in a change in fungal cell membrane lipid composition. This structural change alters cell permeability and, ultimately, results in the osmotic disruption or growth inhibition of the fungal cell[1].

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

## REFERENCES

[1]. Anik ST, et al. Extreme vertexes design in formulation development: solubility of butoconazole nitrate in a multicomponent system. J Pharm Sci. 1981;70(8):897-900.

[2]. Pharmacology refers to the chemical makeup and behavior of GYNAZOLE 1 (butoconazole nitrate cream).



Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA