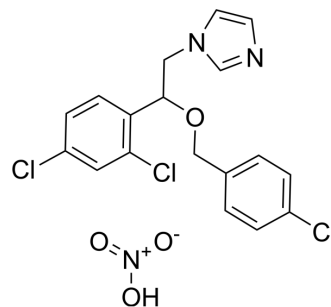


Econazole nitrate

Cat. No.:	HY-B0453
CAS No.:	24169-02-6
Molecular Formula:	C ₁₈ H ₁₆ Cl ₃ N ₃ O ₄
Molecular Weight:	444.7
Target:	Fungal; Bacterial; Antibiotic
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

In Vitro	DMSO : 50 mg/mL (112.44 mM; Need ultrasonic)					
	H ₂ O : 0.67 mg/mL (1.51 mM; Need ultrasonic)					
	Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg
		Concentration				
		1 mM		2.2487 mL	11.2435 mL	22.4871 mL
5 mM			0.4497 mL	2.2487 mL	4.4974 mL	
	10 mM		0.2249 mL	1.1244 mL	2.2487 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 (5.62 mM); Clear solution					
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (5.62 mM); Clear solution					
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (5.62 mM); Clear solution					

BIOLOGICAL ACTIVITY

Description	Econazole nitrate is an imidazole class antifungal medication ^[1] . Econazole nitrate also has antibacterial activity ^[2] .
IC₅₀ & Target	Antifungal
In Vitro	Econazole nitrate is an antifungal medication of the imidazole class. It is used as a cream to treat skin infections such as athlete's foot, tinea, pityriasis versicolor, ringworm, and jock itch. In each of these tests the activity of econazole was compared with that of different reference drugs. Vaginal candidiasis in rats was cured after oral administration of econazole. Toxicity and teratogenicity studies in different laboratory animals indicate that econazole is well tolerated ^[1] .

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

CUSTOMER VALIDATION

- Anal Biochem. 2019 Dec 15;587:113463.
- Oxid Med Cell Longev. 2019 Aug 5;2019:8265958.

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REFERENCES

- [1]. Thienpont, D., et al., Biological and toxicological properties of econazole, a broad-spectrum antimycotic. *Arzneimittelforschung*, 1975. 25(2): p. 224-30.
- [2]. Kates SG, et al. The antibacterial efficacy of econazole nitrate in interdigital toe web infections. *J Am Acad Dermatol*. 1990 Apr;22(4):583-6.
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Caution: Product has not been fully validated for medical applications. For research use only.

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