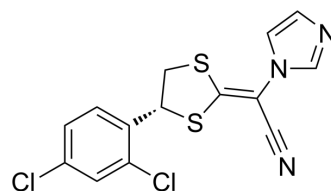


Luliconazole

Cat. No.:	HY-14283		
CAS No.:	187164-19-8		
Molecular Formula:	C ₁₄ H ₉ Cl ₂ N ₃ S ₂		
Molecular Weight:	354.28		
Target:	Fungal; Antibiotic		
Pathway:	Anti-infection		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro	DMSO : 50 mg/mL (141.13 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	2.8226 mL	14.1131 mL	28.2263 mL
		5 mM	0.5645 mL	2.8226 mL	5.6453 mL
10 mM		0.2823 mL	1.4113 mL	2.8226 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (7.06 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (7.06 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (7.06 mM); Clear solution 				

BIOLOGICAL ACTIVITY

Description	Luliconazole (NND 502) is a topical antifungal imidazole antibiotic with broad-spectrum and potent antifungal activity. Luliconazole can be used for the research of skin infection, including dermatophytosis, tinea corporis, tinea pedis et al ^[1] .
In Vitro	The MICs of LLCZ against the organism measured by a standardized microdilution method using RPMI 1640 medium, were 0.002 µg/ml for <i>T. mentagrophytes</i> TIMM1189 and 0.002 µg/ml for TIMM2789 ^[1] . The minimum inhibitory concentrations (MIC) of luliconazole against <i>Trichophyton</i> spp. (<i>T. rubrum</i> , <i>T. mentagrophytes</i> and <i>T. tonsurans</i>) and <i>Candida albicans</i> are measured by the standardized broth microdilution method ^[1] .

Luliconazole demonstrates great potency against Trichophyton spp. (MIC range: 0.00012-0.002 µg/ml) than the reference agents, with T. rubrum being the most susceptible to it (MIC range: 0.00012-0.00024 µg/ml). Luliconazole is against T. mentagrophytes with MIC values ranging 0.00012-0.002 µg/ml. Luliconazole is also highly active against Candida albicans (MIC range: 0.031-0.13 µg/ml). Further, the MIC of luliconazole against Malassezia restricta is very low (MIC range: 0.004-0.016 µg/ml)^[1].

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

In Vivo

Luliconazole (subcutaneous injection; 1, 5 and 25 mg/kg/day) is administered from the beginning of organogenesis (gestation day 7) through the end of lactation (lactation day 20). Luliconazole at 25 mg/kg presents maternal toxicity and embryofetal toxicity (increased prenatal pup mortality, reduced live litter sizes and increased postnatal pup mortality). Luliconazole at 5 mg/kg exhibits no embryofetal toxicity. Additionally, at 25 mg/kg/day has no treatment effects on postnatal development in rats^[2].

Luliconazole (appliance on skin; 0.02%-1%; 7-14 days) has dose-dependent therapeutic efficacy on skin, it exerts efficacy its even at a concentration of 0.02%, and its efficacy at 0.1% is equal to that of 1% bifonazole crema tinea corporis model (4- and 8-day treatment) and the tinea pedis model (7- and 14-day treatment)^[3].

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

Animal Model:	Male specific-pathogen-free (SPF) Hartley guinea pig models of tinea corporis and tinea pedis ^[2]
Dosage:	0.02%-1%
Administration:	Appliance on skin; 0.02%-1%; 7-14 days
Result:	Was sufficiently potent for short-term treatment for dermatophytosis in vivo.

REFERENCES

[1]. Hiroyasu Koga, et al. Short-term therapy with luliconazole, a novel topical antifungal imidazole, in guinea pig models of tinea corporis and tinea pedis. Antimicrob Agents Chemother. 2012 Jun;56(6):3138-43.

[2]. Hiroyasu Koga, et al. In vitro antifungal activities of luliconazole, a new topical imidazole. Med Mycol. 2009;47(6):640-7.

[3]. LUZU (luliconazole) Cream, 1% for topical use

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