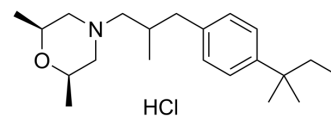


Amorolfine hydrochloride

Cat. No.:	HY-B0238
CAS No.:	78613-38-4
Molecular Formula:	C ₂₁ H ₃₆ ClNO
Molecular Weight:	353.97
Target:	Fungal; 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 : 12.5 mg/mL (35.31 mM; Need ultrasonic)					
	H ₂ O : 3.33 mg/mL (9.41 mM; Need ultrasonic)					
	Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg
		Concentration				
		1 mM		2.8251 mL	14.1255 mL	28.2510 mL
5 mM			0.5650 mL	2.8251 mL	5.6502 mL	
	10 mM		0.2825 mL	1.4125 mL	2.8251 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: ≥ 1.25 mg/mL (3.53 mM); Clear solution					
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 1.25 mg/mL (3.53 mM); Clear solution					
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 1.25 mg/mL (3.53 mM); Clear solution					

BIOLOGICAL ACTIVITY

Description	Amorolfine (Ro 14-4767/002) hydrochloride is a potent anti-fungal agent. Amorolfine hydrochloride inhibits ergosterol biosynthesis. Amorolfine hydrochloride has the potential for the research of <i>Neoscytalidium dimidiatum</i> onychomycosis ^[1] [2].
In Vitro	Amorolfine hydrochloride acts primarily by inhibiting ergosterol biosynthesis, a component of fungal cell membrane, and possesses both fungistatic and fungicidal activity ^[1] . Amorolfine hydrochloride (0-128 mg/l) (2-7 days) shows anti-fungal activity for Dermatophyte fungi, Filamentous fungi, Pathogenic yeasts, Dimorphic fungi, Dematiaceous fungi ^[1] .

Amorolfine hydrochloride shows anti-fungal activity with 90% killing corresponding concentrations of 3, 3, 10 and 100 mg/L for *Trichophyton mentagrophytes*, *C. albicans*, *Histoplasma capsulatum*, *Cryptococcus neoformans*, respectively^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Amorolfine hydrochloride (0.01%-1%; Intravaginal application; twice daily for 3 days) shows anti-fungal activity in rats with vaginal candidiasis^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Rats (vaginal candidiasis) ^[1]
Dosage:	0.01%-1%
Administration:	Intravaginal application; twice daily for 3 days
Result:	Produced a dose dependent log reduction in cell count; a concentration of 1 % cleared the vagina of <i>C. albicans</i> completely.

REFERENCES

[1]. Haria M, et al. Amorolfine. A review of its pharmacological properties and therapeutic potential in the treatment of onychomycosis and other superficial fungal infections. *Drugs*. 1995 Jan;49(1):103-20.

[2]. Bunyaratavej S, et al. Efficacy of 5% amorolfine nail lacquer in *Neoscytalidium dimidiatum* onychomycosis. *J Dermatolog Treat*. 2016 Aug;27(4):359-63.

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

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