Enfumafungin

Cat. No.: HY-N8537

CAS No.: 260979-95-1

Molecular Formula: $C_{38}H_{60}O_{12}$

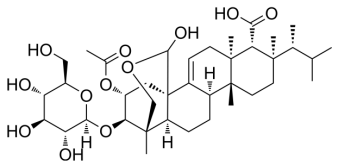
Molecular Weight: 708.88

Target: Fungal

Pathway: Anti-infection

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (141.07 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.4107 mL	7.0534 mL	14.1068 mL
	5 mM	0.2821 mL	1.4107 mL	2.8214 mL
	10 mM	0.1411 mL	0.7053 mL	1.4107 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 (3.53 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (3.53 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (3.53 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Enfumafungin, a triterpene glycoside, is isolated from extracts derived from fungus Hormonema carpetanum. Enfumafungin is an antifungal compound that is acting on the fungal cell wall, as the (1,3)-beta-D-glucan synthase inhibitor. Enfumafungin is specific for yeasts and fungi (excluding Cryptococcus) and does not inhibit the growth of Bacillus subtilis[1][2].

IC_{50} & Target

(1,3)-beta-D-glucan synthase[1]

In Vitro

Enfumafungin (24-48 h) has MICs of less than 0.5 μg/mL against the Candida and Aspergillus species tested and it is inactive

	against Cryptococcus, including the decapsulated form (MY2062)[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Enfumafungin (50-200 mg/kg; i.p. twice daily for 2 days) produces a significant decrease in the number of c.f.u. in kidneys of mice challenged with C. albicans, with an ED_{90} of 90 mg/kg[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Peláez F, et, al. The discovery of enfumafungin, a novel antifungal compound produced by an endophytic Hormonema species biological activity and taxonomy of the producing organisms. Syst Appl Microbiol. 2000 Oct;23(3):333-43.

[2]. Onishi J, et, al. Discovery of novel antifungal (1,3)-beta-D-glucan synthase inhibitors. Antimicrob Agents Chemother. 2000 Feb;44(2):368-77.

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