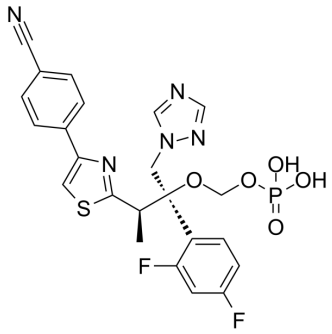
Fosravuconazole



Cat. No.:	HY-16779
CAS No.:	351227-64-0
Molecular Formula:	$C_{23}H_{20}F_2N_5O_5PS$
Molecular Weight:	547.47
Target:	Fungal; Parasite
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 (182.66 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.8266 mL	9.1329 mL	18.2658 mL
	5 mM	0.3653 mL	1.8266 mL	3.6532 mL
	10 mM	0.1827 mL	0.9133 mL	1.8266 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 (4.57 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (4.57 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (4.57 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Fosravuconazole (BMS-379224), a proagent of Ravuconazole, is an orally active broad spectrum antifungal agent. Fosravuconazole can be used for candidiasis, onychomycosis and parasitemia research[1][2][3].

IC_{50} & Target

Fungal[1]

In Vitro

Ravuconazole has potent in vitro antifungal activity against a wide range of fungal species, including Candida, Aspergillus, and Trichophyton species[1].

	MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Fosravuconazole (E-1224; 10-50 mg/kg; oral administration; daily; for 20 days) treatment suppresses the parasitemia and prevents death in mice infected with the T. cruzi Y strain[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Swiss female mice (20-24 g) inoculated with trypomastigotes (Y strain)[3].
Dosage:	10 mg/kg, 20 mg/kg, 30 mg/kg, 40 mg/kg, 50 mg/kg
Administration:	Oral administration; daily; for 20 days
Result:	Suppressed the parasitemia and prevented death.

REFERENCES

[1]. Shinichi Watanabe, et al. Efficacy and safety of fosravuconazole L-lysine ethanolate, a novel oral triazole antifungal agent, for the treatment of onychomycosis: A multicenter, double-blind, randomized phase III study. J Dermatol. 2018 Oct;45(10):1151-1159.

[2]. Katsura Hata, et al. Development of E1224 by leveraging a strategic partnership for the medicines creation against neglected tropical diseases. Parasitol Int. 2020 Dec 25;81:102278.

[3]. Lívia de Figueiredo Diniz, et al. Outcome of E1224-Benznidazole Combination Treatment for Infection with a Multidrug-Resistant Trypanosoma cruzi Strain in Mice. Antimicrob Agents Chemother. 2018 May 25;62(6):e00401-18.

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