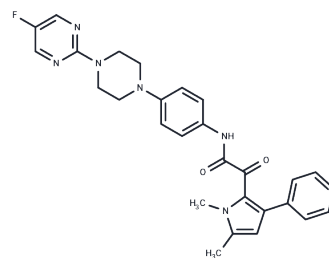


Olorofim

Chemical Properties

CAS No. :	1928707-56-5
Formula:	C ₂₈ H ₂₇ FN ₆ O ₂
Molecular Weight:	498.55
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	Olorofim is a novel selective antifungal compound with inhibitory effect on <i>Aspergillus fumigatus</i> DHODH (IC ₅₀ : 44 nM) and almost no inhibitory effect on human DHODH (>100 μM). Olorofim has good efficacy against various pathogenic filamentous and dimorphic fungi such as <i>Penicillium</i> spp, <i>Dermatophilus</i> spp and <i>Fusarium</i> spp.
In vitro	Olorofim (0.004-0.125 mg/L) showed highly potent in vitro activity against dermatophytes and opportunistic moulds (MIC range of 0.004-0.125 mg/L) except for <i>Alternaria alternata</i> . <i>Penicillium</i> , and <i>Talaromyces</i> species and <i>Trichophyton</i> species exhibited a low geometric mean (GM) MIC (GM 0.027 mg/L and 0.015 mg/L, respectively) of olorofim. Importantly, a 2-12 dilution step decrease in in vitro activity of olorofim as compared with azoles was observed against <i>Penicillium</i> and <i>Talaromyces</i> . Notably, olorofim displayed potent in vitro activity against <i>Trichophyton</i> isolates including terbinafine-resistant and azole-resistant <i>Trichophyton mentagrophytes/interdigitale</i> with a modal MIC value of 0.008 mg/L. Further, azole-resistant <i>A. fumigatus</i> isolates harbouring mutations in azole target Cyp51A genes and several cryptic aspergilli displayed low MICs (range 0.004-0.03 mg/L) of olorofim.[2]
In vivo	The in vivo efficacy of the drug was investigated, using a guinea pig model, experimentally infected with <i>Microsporum gypseum</i> . Typical skin lesions of dermatophyte infection were observed in the guinea pig model at 7 days postinoculation. Following 1 week of daily topical administration of olorofim, similar to the clotrimazole group, the skin lesions were resolved and normal hair growth patterns appeared.[1]

Solubility Information

Solubility	DMSO: 50 mg/mL (100.29 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)
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A DRUG SCREENING EXPERT

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.0058 mL	10.0291 mL	20.0582 mL
5 mM	0.4012 mL	2.0058 mL	4.0116 mL
10 mM	0.2006 mL	1.0029 mL	2.0058 mL
50 mM	0.0401 mL	0.2006 mL	0.4012 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Mirbzadeh Ardakani E, et al. Olorofim Effectively Eradicates Dermatophytes In Vitro and In Vivo. Antimicrob Agents Chemother. 2021;65(12):e0138621.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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