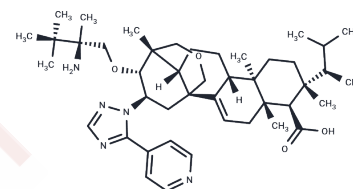


Ibexafungerp

Chemical Properties

CAS No. :	1207753-03-4
Formula:	C44H67N5O4
Molecular Weight:	730.03
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	Ibexafungerp (MK 3118) is an orally active β -1,3-glucan synthase inhibitor with antifungal activity, disrupting fungal cell wall integrity, used in fungal infection research.
Targets(IC50)	Antifungal
In vitro	Ibexafungerp exhibited broad in vitro activity against a wide range of <i>Candida</i> spp. including <i>Candida auriculata</i> and <i>Candida auriculata</i> isolates with fks mutations, with minimum inhibitory concentrations (MIC50 and MIC90) of 0.5 μ g/mL and 1.0 μ g/mL, respectively, in more than 400 <i>C. auris</i> isolates.
In vivo	Methods: Ibexafungerp (3.125, 12.5, 50 and 200 mg/kg, oral) was administered to mice for single-dose pharmacokinetic (PK) evaluation: plasma was collected from 3 mice groups at each time point, and plasma drug concentrations were determined by liquid chromatography-tandem mass spectrometry; a non-compartmental model was used in the pharmacokinetic analysis, and the elimination half-life was calculated by nonlinear least squares technique; the area under the concentration-time curve (AUC) was calculated by the trapezoidal rule. Results: The pharmacokinetics of Ibexafungerp were relatively linear over the entire dose range, with an elimination half-life in plasma ranging from 5.9 h to 8.5 h; within the dose range, the maximum concentration (Cmax) of the drug in serum increased from 0.04 mg/L to 2.66 mg/L.[6]

Solubility Information

Solubility	DMSO: 200 mg/mL (273.96 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.3698 mL	6.849 mL	13.6981 mL
5 mM	0.274 mL	1.3698 mL	2.7396 mL
10 mM	0.137 mL	0.6849 mL	1.3698 mL
50 mM	0.0274 mL	0.137 mL	0.274 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Lepak AJ, Marchillo K, Andes DR. Pharmacodynamic target evaluation of a novel oral glucan synthase inhibitor, SCY-078 (MK-3118), using an in vivo murine invasive candidiasis model. *Antimicrob Agents Chemother.* 2015 Feb; 59(2):1265-72.

Jiménez-Ortigosa C, et al. Enfumafungin derivative MK-3118 shows increased in vitro potency against clinical echinocandin-resistant *Candida* Species and *Aspergillus* species isolates. *Antimicrob Agents Chemother.* 2014;58 (2):1248-51.

Pfaller MA, et al. Activity of MK-3118, a new oral glucan synthase inhibitor, tested against *Candida* spp. by two international methods (CLSI and EUCAST). *J Antimicrob Chemother.* 2013 Apr;68(4):858-63.

Pfaller MA, Messer SA, Motyl MR, Jones RN, Castanheira M. In vitro activity of a new oral glucan synthase inhibitor (MK-3118) tested against *Aspergillus* spp. by CLSI and EUCAST broth microdilution methods. *Antimicrob Agents Chemother.* 2013 Feb;57(2):1065-8.

Ghannoum M, et al. Ibrexafungerp: A Novel Oral Triterpenoid Antifungal in Development for the Treatment of *Candida auris* Infections. *Antibiotics (Basel).* 2020 Aug 25;9(9):539.

Lepak AJ, et al. Pharmacodynamic target evaluation of a novel oral glucan synthase inhibitor, SCY-078 (MK-3118), using an in vivo murine invasive candidiasis model. *Antimicrob Agents Chemother.* 2015 Feb;59(2):1265-72.

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