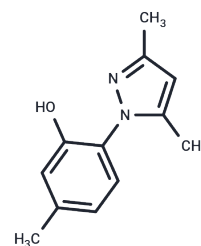


ME1111

Chemical Properties

CAS No. : 1391758-52-3
 Formula: C₁₂H₁₄N₂O
 Molecular Weight: 202.25
 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	ME1111, a succinate dehydrogenase inhibitor of Trichophyton species, serves as an antifungal agent effective against dermatophytes. Notably proficient in penetrating human nails, it is utilized in onychomycosis research.
Targets(IC50)	Antifungal
In vitro	ME1111 (0.125, 0.0625 µg/mL; 4, 8, 12 h) inhibits T. mentagrophytes TIMM 2789 (MICs: 0.5 µg/mL and 0.25 µg/mL in RPMI 1640 medium and SDB, respectively).[2] ME1111 strongly inhibits the succinate-2,6-dichlorophenolindophenol reductase reaction in Trichophyton rubrum and T. mentagrophytes (IC50: 0.029 µg/mL, 0.025 µg/mL) but only shows moderate inhibition of the same reaction in human cell lines.[2]

Solubility Information

Solubility	DMSO: 90 mg/mL (444.99 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (16.32 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.9444 mL	24.7219 mL	49.4438 mL
5 mM	0.9889 mL	4.9444 mL	9.8888 mL
10 mM	0.4944 mL	2.4722 mL	4.9444 mL
50 mM	0.0989 mL	0.4944 mL	0.9889 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

Nishiyama Y, et al. Morphological Effect of the New Antifungal Agent ME1111 on Hyphal Growth of Trichophyton mentagrophytes, Determined by Scanning and Transmission Electron Microscopy. *Antimicrob Agents Chemother.* 2016 Dec 27;61(1).

Takahata S, et al. Mechanism of Action of ME1111, a Novel Antifungal Agent for Topical Treatment of Onychomycosis. *Antimicrob Agents Chemother.* 2015 Nov 23;60(2):873-80.

Tabata Y, et al. Characterization of Antifungal Activity and Nail Penetration of ME1111, a New Antifungal Agent for Topical Treatment of Onychomycosis. *Antimicrob Agents Chemother.* 2015;60(2):1035-1039.

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