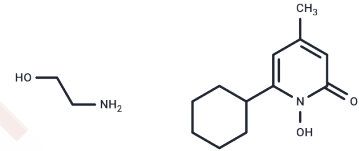


Ciclopirox olamine

Chemical Properties

CAS No. :	41621-49-2
Formula:	C ₁₄ H ₂₄ N ₂ O ₃
Molecular Weight:	268.35
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	Ciclopirox olamine is a broad-spectrum antifungal agent with additional antibacterial and anti-inflammatory activities.
Targets(IC50)	ATPase,Ferroptosis,Antibacterial,Antifungal
In vivo	Ciclopirox exhibits inhibitory effects on the growth of <i>Candida albicans</i> strain SC5314 (MIC ₈₀ =1.0-2.0µg/mL) and <i>Aspergillus fumigatus</i> strain B5233 (IC ₅₀ =4.22 µM).
Cell Research	Sabouraud glucose medium (2%) is used for cell culture growth, and RPMI 2% glucose medium and 2% Sabouraud glucose medium are used for MIC determinations. For cell culture growth curves, 220 mL of 2% Sabouraud glucose medium containing different concentrations of Ciclopirox are inoculated with 10 ⁵ cells/mL, and the mixture is shaken at 160 rpm and 37 °C for 1-10 hours. Growth is measured photometrically at 630 nm. FeCl ₃ or 2,2'-bipyridine is added to the medium at different concentrations for inhibition studie(Only for Reference)

Solubility Information

Solubility	Ethanol: 28 mg/mL (104.34 mM),Sonication is recommended. H ₂ O: < 1 mg/mL (insoluble or slightly soluble), DMSO: 32.33 mg/mL (120.48 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: 1 mg/mL (3.73 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	3.7265 mL	18.6324 mL	37.2648 mL
5 mM	0.7453 mL	3.7265 mL	7.453 mL
10 mM	0.3726 mL	1.8632 mL	3.7265 mL
50 mM	0.0745 mL	0.3726 mL	0.7453 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

Niewerth M, et al. Antimicrob Agents Chemother, 2003, 47(6), 1805-1817.

Zarembek KA, et al. Antimicrob Agents Chemother, 2009, 53(6), 2654-2656.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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