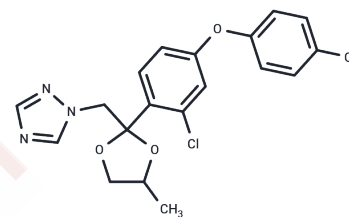


Difenoconazole

Chemical Properties

CAS No. :	119446-68-3
Formula:	C ₁₉ H ₁₇ Cl ₂ N ₃ O ₃
Molecular Weight:	406.26
Storage:	Store under nitrogen Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



Biological Description

Description	Difenoconazole is a broad-spectrum triazole fungicide that inhibits ergosterol biosynthesis via inhibition of the cytochrome P450-dependent 14 α -demethylation of lanosterol, which results in disruption of the fungal cell membrane and cell death.
Targets(IC50)	Antifungal
In vivo	Difenoconazole is also lethal to zebrafish (<i>D. rerio</i>) embryos, larvae, and adults (LC50s = 2.34, 1.17, and 1.45 mg/L, respectively)[1]

Solubility Information

Solubility	DMSO: 250 mg/mL (615.37 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: 10 mg/mL (24.61 mM),Solution. 10% DMSO+90% Saline: < 10 mg/mL (24.61 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. <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	2.4615 mL	12.3074 mL	24.6148 mL
5 mM	0.4923 mL	2.4615 mL	4.923 mL
10 mM	0.2461 mL	1.2307 mL	2.4615 mL
50 mM	0.0492 mL	0.2461 mL	0.4923 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

L. L. Vawdrey A , C , K. R. E. Grice B and D. Westerhuis A. Field and laboratory evaluations of fungicides for the control of brown spot (*Corynespora cassiicola*) and black spot (*Asperisporium caricae*) of papaya in far north Queensland, Australia]]]. *Australasian Plant Pathology*, 2008, 37(6):p.552-558.

Dong X , Zhang L , Chen M , et al. Exposure to difenoconazole inhibits reproductive ability in male marine medaka (*Oryzias melastigma*)]]. 2018, 063(001):126-132.

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