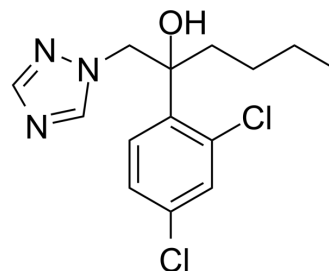


Hexaconazole

Cat. No.:	HY-A0278		
CAS No.:	79983-71-4		
Molecular Formula:	C ₁₄ H ₁₇ Cl ₂ N ₃ O		
Molecular Weight:	314.21		
Target:	Fungal; Reactive Oxygen Species		
Pathway:	Anti-infection; Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (318.26 mM)
 H₂O : < 0.1 mg/mL (insoluble)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	3.1826 mL	15.9129 mL	31.8258 mL
	5 mM	0.6365 mL	3.1826 mL	6.3652 mL
	10 mM	0.3183 mL	1.5913 mL	3.1826 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
 Solubility: ≥ 2.5 mg/mL (7.96 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
 Solubility: ≥ 2.5 mg/mL (7.96 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.5 mg/mL (7.96 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Hexaconazole is a systemic fungicide used for the control of many fungi particularly Ascomycetes and Basidiomycetes. In vitro: Among the enzymatic antioxidants, superoxide dismutase and peroxidase are significantly up-regulated by hexaconazole. [1] Hexaconazole and its enantiomers cause the down-regulation of tryptophan levels and the up-regulation of kynurenine (KYN) levels, suggesting a role for hexaconazole in the activation of the KYN pathway and providing information for the mechanism of its toxicity.[2]

REFERENCES

- [1]. Dubey P et al. Comparative analyses of genotoxicity, oxidative stress and antioxidative defence system under exposure of methyl parathion and hexaconazole in barley (*Hordeum vulgare* L.) *Environ Sci Pollut Res Int*. 2015 Dec;22(24):19848-59.
- [2]. Wang Y et al. Monitoring tryptophan metabolism after exposure to hexaconazole and the enantioselective metabolism of hexaconazole in rat hepatocytes in vitro. *J Hazard Mater*. 2015 Sep 15;295:9-16.
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Caution: Product has not been fully validated for medical applications. For research use only.

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