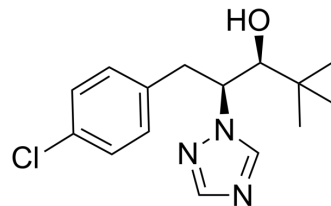


Paclobutrazol

Cat. No.:	HY-B0853
CAS No.:	76738-62-0
Molecular Formula:	C ₁₅ H ₂₀ ClN ₃ O
Molecular Weight:	293.79
Target:	Fungal
Pathway:	Anti-infection
Storage:	4°C, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 250 mg/mL (850.95 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	3.4038 mL	17.0190 mL	34.0379 mL
		5 mM	0.6808 mL	3.4038 mL	6.8076 mL
		10 mM	0.3404 mL	1.7019 mL	3.4038 mL
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (7.08 mM); Clear solution				
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (7.08 mM); Clear solution				
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (7.08 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	Paclobutrazol is a triazole-containing plant growth retardant that is known to inhibit the biosynthesis of gibberellins. Paclobutrazol also has antifungal activities. Paclobutrazol, transported acropetally in plants, can also suppress the synthesis of abscisic acid and induce chilling tolerance in plants. Paclobutrazol is typically used to support research on the role of gibberellins in plant biology ^{[1][2]} .
In Vitro	Paclobutrazol (Foliar spraying, 5-20 µg/mL) increases total soluble sugars, starch, protein and free amino acids in mature seeds of <i>Brassica juncea</i> ^[1] . Paclobutrazol (0-19.8 µg:AI/mL) inhibits the growth of a panel of fungi (such as <i>Sirococcus clavignenti-juglandacearum</i> and <i>Ceratocystis fagacearum</i>) ^[2] .

Paclobutrazol (5-100 µg/mL, 7-21 days) improves the quality of tomato seedlings and induces resistance to early blight disease^[3].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- EMBO J. 2024 Oct 3.

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Caution: Product has not been fully validated for medical applications. For research use only.

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