

Pyribencarb

Chemical Properties

CAS No. :	799247-52-2
Formula:	C ₁₈ H ₂₀ ClN ₃ O ₃
Molecular Weight:	361.82
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year

Biological Description

Description	Pyribencarb (), a benzylcarbamate-type fungicide, exhibits broad-spectrum activity against various plant pathogenic fungi. Acting as a potent Qo inhibitor of cytochrome b, Pyribencarb demonstrates particular efficacy against <i>Botrytis cinerea</i> and <i>Sclerotinia sclerotiorum</i> .
Targets(IC50)	Antifungal
In vitro	Pyribencarb effectively suppresses succinate-cytochrome c reductase (SCR) activities in <i>Botrytis cinerea</i> (cucumber gray mold), <i>Corynespora cassiicola</i> (leaf spot), and decylubiquinol-cytochrome c reductase (UCR) in <i>B. cinerea</i> , demonstrating uncompetitive inhibition of <i>B. cinerea</i> 's UCR with a substrate-dependent inhibition constant of 13 nM[1]. Its action targets cytochrome b within complex III of the electron transport chain's respiratory system. Compared to strobilurin fungicides, pyribencarb shows relatively less inhibitory strength on SCR activities in plants, rats, and carp[1].

Solubility Information

Solubility	DMSO: 90 mg/mL (248.7 mM) (1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7638 mL	13.819 mL	27.6381 mL
5 mM	0.5528 mL	2.7638 mL	5.5276 mL
10 mM	0.2764 mL	1.3819 mL	2.7638 mL
50 mM	0.0553 mL	0.2764 mL	0.5528 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.

Reference

Satoshi Kataoka, et al. Mechanism of action and selectivity of a novel fungicide, pyribencarb. J Pestic Sci, 35(2), 99-106 (2010).

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