

Produktinformation



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Data Sheet (Cat.No.TN4871)

TargetM**Ò**I

Pyrolin

Chemical Properti	es
CAS No. :	95-71-6
Formula:	C7H8O2
Molecular Weight:	124.14
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year

Biological Description

Description	Pyrolin has a strong antifungal activity and exerts a potent impact on the ultrastructure of M.fructicola.
Targets(IC50)	Anti-infection
In vitro	To explore the antifungal activity and potential mechanism of Pyrolin against Monilinia fructicola.METHODS AND RESULTS: Agar plate tests was conducted to test the inhibitory effect in-vitro and in vivo of Pyrolin.And doubling dilution method was used to determine the minimal inhibitory concentration(MIC) and minimal fugicide concentration(MFC).Polyphenol oxidase(PPO),peroxidase(POD) and phenylalanine ammonium-lyase(PAL) activities induced by inoculation with Pyrolin and M.fructicola were studied in peach.The ultrastructure of M.fructicola treated by Pyrolin was observed through scanning electron microscope(SEM) and transmission electron microscope (TEM). Pyrolin displayed strong antifungal activity to M.fructicola and the activity was significantly increased when the applied concentration was higher,the MIC value of 0.032 mg/mL and MFC value of 0.156 mg/mL.The activities of PPO,POD and PAL in peach increased significantly when inoculated with Pyrolin and M.fructicola,and maintained at a high level throughout the experiment.The observations with SEM revealed that the hyphae distorted,the adhesions mycelium occurred,the cell wall was rupture,cell surface occurred substance of flocculent agglutination.The observations with TEM showed that the hypha became thinning obviously,the inner structure confused,the hyphal cell was damaged severely.CONCLUSIONS: Pyrolin has a strong antifungal activity and exerts a potent impact on the ultrastructure of M fructicola

Solubility Information

Solubility	DMSO: 60 mg/ml (483.33 mM)
	(< 1 mg/ml refers to the product slightly soluble or insoluble)

A DRUG SCREENING EXPERT

Preparing Stock Solutions

	1mg	5mg	10mg	
1 mM	8.0554 mL	40.2771 mL	80.5542 mL	
5 mM	1.6111 mL	8.0554 mL	16.1108 mL	
10 mM	0.8055 mL	4.0277 mL	8.0554 mL	
50 mM	0.1611 mL	0.8055 mL	1.6111 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

Inhibitory Effect and Antimicrobial Mechanism of Pyrolin on Monilinia fructicola in Peach. Scientia Agricultura Sinica, 2009,42 (8) :2784-2792.

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