

Lasiodiplodin

Chemical Properties

CAS No.:	32885-81-7
Formula:	C ₁₇ H ₂₄ O ₄
Molecular Weight:	292.4
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

Biological Description

Description	Lasiodiplodin may have potential anti-inflammatory activity, it shows moderate suppression effects on induced NO production. Lasiodiplodin inhibits electron transport chain.
Targets(IC ₅₀)	ATPase: None NO: None TNF- α : None
In vitro	Four natural products were isolated from the fungus <i>Botryosphaeria rhodina</i> , and their effects on photosynthesis were tested. METHODS AND RESULTS: Only Lasiodiplodin (1) inhibited ATP synthesis and electron flow from water to methylviologen; therefore, it acts as a Hill reaction inhibitor in freshly lysed spinach thylakoids. Photosystem I and II and partial reactions as well as ATPase were measured in the presence of 1. CONCLUSIONS: Three new different sites of 1 interaction and inhibition were found: one at CF1, the second in the water-splitting enzyme, and the third at the electron-transfer path between P680 and QA; these targets are different from that of the synthetic herbicides present. Electron transport chain inhibition by 1 was corroborated by fluorescence induction kinetics studies.

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.420 mL	17.100 mL	34.200 mL
5 mM	0.684 mL	3.420 mL	6.840 mL
10 mM	0.342 mL	1.710 mL	3.420 mL
50 mM	0.068 mL	0.342 mL	0.684 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

1. Inhibition of photophosphorylation and electron transport chain in thylakoids by lasiodiplodin, a natural product from *Botryosphaeria rhodina*. J Agric Food Chem. 2007 May 16;55(10):4217-21.
2. Inhibitory Effects of Chemical Compounds Isolated from the Rhizome of *Smilax glabra* on Nitric Oxide and Tumor Necrosis Factor- α Production in Lipopolysaccharide-Induced RAW264.7 Cell. Evid Based Complement Alternat Med. 2015;2015:602425.

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