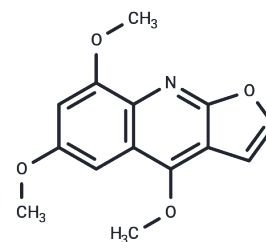


Maculosidin

Chemical Properties

CAS No. :	522-19-0
Formula:	C ₁₄ H ₁₃ NO ₄
Molecular Weight:	259.26
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	Maculosidine affect the PS I electron acceptors on leaf discs, it can inhibit ATP synthesis, basal, phosphorylating and uncoupled electron transport acting as Hill reaction inhibitors on spinach chloroplasts.
In vitro	METHODS AND RESULTS: In the search for natural inhibitors of plant growth, we investigate the mechanism of action of the natural furoquinoline alkaloids isolated from <i>Balfourodendron riedelianum</i> (Rutaceae): evolitrine (1), kokusagine (2), γ -fagarine (3), skimmianine (4) and Maculosidine (5) on the photosynthesis light reactions. Their effect on the electron transport chain on thylakoids was analyzed. Alkaloids 1, 2, 4 and 5 inhibited ATP synthesis, basal, phosphorylating and uncoupled electron transport acting as Hill reaction inhibitors on spinach chloroplasts. Alkaloid 3 was not active. The inhibition and interaction site of alkaloids 1, 2, 4 and 5 on the non-cyclic electron transport chain was studied by polarography and fluorescence of the chlorophyll a (Chl a). CONCLUSIONS: The results indicate that the target for 1 was localized on the donor and acceptor side of PS II. In addition alkaloids 2 and 5 affect the PS I electron acceptors on leaf discs.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.8571 mL	19.2857 mL	38.5713 mL
5 mM	0.7714 mL	3.8571 mL	7.7143 mL
10 mM	0.3857 mL	1.9286 mL	3.8571 mL
50 mM	0.0771 mL	0.3857 mL	0.7714 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Quinoline alkaloids from *Acronychia laurifolia*. *Phytochemistry*. 1999 Sep;52(1):95-8.

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