Data Sheet (Cat.No.TN2912)

TargetMol
A DRUG SCREENING EXPERT

3,9-Dihydroxypterocarpan

Chemical Properties

CAS No.:	61135-91-9
Formula:	C15H12O4
Molecular Weight:	256.3
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	3,9-Dihydroxypterocarpan and phaseollidin are all good precursors of the pterocarpan phytoalexin phaseollin.
Targets(IC_{50})	Others: None
In vitro	METHODS AND RESULTS: A microsomal preparation from elicitor-challenged soybean cell suspension cultures catalyzes an NADPH-dependent and dioxygen-dependent 6a-hydroxylation of 3,9-Dihydroxypterocarpan to 3,6a,9-trihydroxypterocarpan. The latter is a precursor for the soybean phytoalexin glyceollin. No reaction is observed with NADH. The 6a-hydroxylase is inhibited by cytochrome c. Optical rotatory dispersion spectra of the enzymatic product formed from racemic dihydroxypterocarpan and of the remaining unreacted substrate proved that the product has the natural (6aS, 11aS)-configuration and that hydroxylation proceeds with retention of configuration. The 6a-hydroxylase was also found in elicitor-challenged soybean seedlings. CONCLUSIONS: The results indicate that the 6a-hydroxylase is specifically involved in the biosynthesis of glyceollin.

Solubility Information

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

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.902 mL	19.508 mL	39.017 mL
5 mM	0.780 mL	3.902 mL	7.803 mL
10 mM	0.390 mL	1.951 mL	3.902 mL
50 mM	0.078 mL	0.390 mL	0.780 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 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Induction of phytoalexin synthesis in soybean. Stereospecific 3,9-dihydroxypterocarpan 6a-hydroxylase from elicitor-induced soybean cell cultures. Eur J Biochem. 1984 Jul 2;142(1):127-31.

Inhibitors · Natural Compounds · Compound Libraries

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