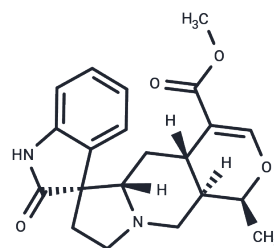


Mitraphylline

Chemical Properties

CAS No. :	509-80-8
Formula:	C ₂₁ H ₂₄ N ₂ O ₄
Molecular Weight:	368.43
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	Mitraphylline has antiproliferative effects on human glioma and neuroblastoma cell lines. It also has anti-inflammatory activity, it inhibits lipopolysaccharide-mediated activation of primary human neutrophils.
Targets(IC50)	IL Receptor,TNF,NF-κB
In vitro	The alkaloids of <i>Uncaria tomentosa</i> micropropagated plantlets and root cultures were isolated and identified by NMR and mass spectrometry. Plantlets yielded pteropodine (1), isopteropodine (2), Mitraphylline (3), isoMitraphylline (4), uncarine F (5), speciophylline (6), rhynchophylline (7) and isorhynchophylline (8). In plantlets growing under continuous light, tetracyclic alkaloids 7 and 8 decreased from 20 ± 1.8 at 2 months to 2.2 ± 0.33 mg/g dry wt at 6 months, while the pentacyclic alkaloids 1-4 increased from 7.7 ± 1.4 to 15 ± 0.05 mg/g dry wt, supporting their biogenetic conversion. Micropropagated plantlets produced four times more alkaloids (27.6 ± 3.1 mg/g dry wt) than greenhouse plants.

Solubility Information

Solubility	DMSO: 6.76 mg/mL (18.35 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7142 mL	13.5711 mL	27.1422 mL
5 mM	0.5428 mL	2.7142 mL	5.4284 mL
10 mM	0.2714 mL	1.3571 mL	2.7142 mL
50 mM	0.0543 mL	0.2714 mL	0.5428 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

Differential alkaloid profile in *Uncaria tomentosa* micropropagated plantlets and root cultures. *Biotechnol Lett.* 2013 May;35(5):791-7.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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