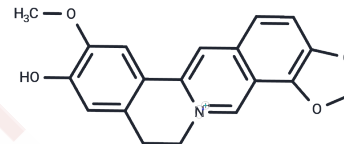


Groenlandicine

Chemical Properties

CAS No. :	38691-95-1
Formula:	C ₁₉ H ₁₆ NO ₄
Molecular Weight:	322.34
Storage:	Keep away from moisture Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Groenlandicine is a protoberberine alkaloid from Coptidis Rhizoma. Groenlandicine exhibits moderate inhibitory effect with IC ₅₀ value of 154.2 μM for human recombinant aldose reductase (HRAR). Groenlandicine selectively induces topoisomerase I-mediated DNA cleavage; Groenlandicine may be a promising anti-Alzheimer's disease agent due to its potent inhibitory activity of both ChEs and beta-amyloids formation, as well as marked ONOO(-) scavenging and good ROS inhibitory capacities.
Targets(IC ₅₀)	Apoptosis, Beta-Secretase, Cholinesterase (ChE), ROS, Topoisomerase
In vitro	Isolated alkaloids from Coptis chinensis Franch. The compounds were identified as berberine, columbamine, Groenlandicine, jatrorrhizine, magnoflorine, corydaldine and ferulic acid methylester. Then measured their bitter degree based on the electronic tongue and evaluated the antibacterial. The results based on the Electronic Tongue showed that berberine, columbamine, Groenlandicine and jatrorrhizine have higher bitter degree than magnoflorine and corydaldine. And they also appeared better antibacterial activity on E. coli and S. aureus. The correlation coefficients between bitter degree and the two bacteria antibacterial activity were 0.983 and 0.911[1]

Solubility Information

Solubility	DMSO: 1.83 mg/mL (5.68 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	3.1023 mL	15.5116 mL	31.0231 mL
5 mM	0.6205 mL	3.1023 mL	6.2046 mL
10 mM	0.3102 mL	1.5512 mL	3.1023 mL
50 mM	0.062 mL	0.3102 mL	0.6205 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

Research on bitter components from *Coptis chinensis* based on electronic tongue. *Zhongguo Zhong Yao Za Zhi*. 2014 Sep;39(17):3326-9.

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