

Humulene epoxide II

Chemical Properties

CAS No.:	19888-34-7
Formula:	C ₁₅ H ₂₄ O
Molecular Weight:	220.4
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

Biological Description

Description	Humulene epoxide II has antimalarial activity.
Targets(IC ₅₀)	Antifection: None
In vitro	METHODS AND RESULTS: The composition of essential oil isolated from <i>Senecio nudicaulis</i> Wall. ex DC. growing wild in Himachal Pradesh, India, was analysed, for the first time, by capillary gas chromatography (GC) and GC-mass spectrometry. A total of 30 components representing 95.3% of the total oil were identified. The essential oil was characterised by a high content of oxygenated sesquiterpenes (54.97%) with caryophyllene oxide (24.99%) as the major component. Other significant constituents were Humulene epoxide II (21.25%), α -humulene (18.75%), β -caryophyllene (9.67%), epi- α -cadinol (2.90%), epi- α -muurolol (2.03%), β -cedrene (1.76%), longiborneol (1.76%), 1-tridecene (1.16%) and citronellol (1.13%). The oil was screened for antioxidant activity using DPPH, ABTS and nitric oxide-scavenging assay. CONCLUSIONS: The oil was found to exhibit significant antioxidant activity by scavenging DPPH, ABTS and nitric oxide radicals with IC ₅₀ values of $10.61 \pm 0.14 \mu\text{g mL}^{-1}$, $11.85 \pm 0.28 \mu\text{g mL}^{-1}$ and $11.29 \pm 0.42 \mu\text{g mL}^{-1}$, respectively.

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	4.537 mL	22.686 mL	45.372 mL
5 mM	0.907 mL	4.537 mL	9.074 mL
10 mM	0.454 mL	2.269 mL	4.537 mL
50 mM	0.091 mL	0.454 mL	0.907 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. Composition and antioxidant activity of *Senecio nudicaulis* Wall. ex DC. (Asteraceae): a medicinal plant growing wild in Himachal Pradesh, India. *Nat Prod Res.* 2015;29(9):883-6.
2. Chemical Composition and Insecticidal Activity of Essential Oils from *Zanthoxylum dissitum* Leaves and Roots against Three Species of Storage Pests. *Molecules.* 2015 May 4;20(5):7990-9.

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