

Vomifoliol

Chemical Properties

CAS No.:	23526-45-6
Formula:	C ₁₃ H ₂₀ O ₃
Molecular Weight:	224.3
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

Biological Description

Description	Vomifoliol is most likely the immediate precursor of dehydrovomifoliol, because of the organism converted abscisic acid (ABA), to dehydrovomifoliol as the major metabolite, and a cell-free extract exhibits vomifoliol dehydrogenase activity. Vomifoliol and stigmasterol have anti-proliferative activity on human lung cancer cell lines.
Targets(IC ₅₀)	HIF: None NF-κB: None VEGFR: None
In vitro	METHODS AND RESULTS:The GC and GC/MS analyses of the solvent organic extractive from the stomach of the bees, having collected <i>Mentha</i> spp. nectar, revealed the presence of methyl syringate (6.6%), terpendiol I (5.0%) and Vomifoliol (3.0%) that can be attributed to the plant origin. Other major compounds from the bee-stomach were related to the composition of cuticular waxes and less to pheromones. Organic extractives from <i>Mentha</i> spp. honey were obtained by solvent-free headspace solid-phase microextraction (HS-SPME) and ultrasonic solvent extraction (USE) and analyzed by GC and GC/MS. The major honey headspace compounds were hotrienol (31.1%-38.5%), 2-methoxy-4-methylphenol (0.5-6.0%), cis- and trans-linalool oxides (0.9-2.8%), linalool (1.0-3.1%) and neroloxide (0.9-1.9%). Methyl syringate was the most abundant compound (38.3-56.2%) in the honey solvent extractives followed by Vomifoliol (7.0-26.6%). CONCLUSIONS: Comparison of the honey organic extractives with the corresponding bee-stomach extractive indicated that methyl syringate and vomifoliol were transferred to the honey while terpendiol I was partially transformed to hotrienol in ripened honey.

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	4.458 mL	22.292 mL	44.583 mL
5 mM	0.892 mL	4.458 mL	8.917 mL
10 mM	0.446 mL	2.229 mL	4.458 mL
50 mM	0.089 mL	0.446 mL	0.892 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. Organic extractives from *Mentha* spp. honey and the bee-stomach: methyl syringate, vomifoliol, terpenediol I, hotrienol and other compounds. *Molecules*. 2010 Apr 22;15(4):2911-24.
2. Metabolism of abscisic acid: Bacterial conversion to dehydrovomifoliol and vomifoliol dehydrogenase activity. *Phytochemistry*, 1984, 23(12):2769-71.
3. Anti-proliferative Activity of Vomifoliol and Stigmasterol Identified in Silkworm Feces on Human Lung Cancer Cell Lines. *Korean Society of Applied Entomology*, 2014, 4:31-31.

Inhibitors · Natural Compounds · Compound Libraries

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