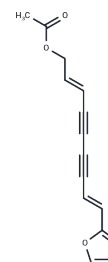


Acetylactrylodinol

Chemical Properties

CAS No. :	61582-39-6
Formula:	C ₁₅ H ₁₂ O ₃
Molecular Weight:	240.25
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	Acetylactrylodinol (Tractylodinol acetate) is a natural product isolated from <i>Atractylodes lancea</i> , possesses antioxidant activity.
Targets(IC50)	Others
In vitro	METHODS AND RESULTS: From the rhizomes of <i>Atractylodes lancea</i> , 2-[(2'E)-3',7'-dimethyl-2',6'-octadienyl]-4-methoxy-6-methylphenol (1) was isolated as a new natural product. The compound showed strong inhibitory effects on 5-lipoxygenase (5-LOX) and cyclooxygenase-1 (COX-1), but exhibited only weak antioxidative activities [IC ₅₀ = 0.1 microM (5-LOX), 2 microM (COX-1), 9 microM (PMN/FMLP), 28 microM (PMNIOZ)]. Moreover, five new acetylenes were isolated and elucidated as (3Z,5E,11E)-tridecatriene-7,9-diynyl-1-O-(E)-ferulate (2), erythro-(1,3Z,11E)-tridecatriene-7,9-diyne-5,6-diyl diacetate (3), (1Z)-atractylodin (4), (1Z)-atractylodinol (5), (1Z)-Acetylactrylodinol (6) plus the known (4E,6E,12E)-tetradecatriene-8,10-diyne-1,3-diyl diacetate (7). CONCLUSIONS: Among the acetylenes, only 2 showed strong inhibition of 5-LOX and COX-1 activity (IC ₅₀ (5-LOX) = 3 microM, IC ₅₀ (COX-1) = 1 microM). In addition, the fatty acids linoleic acid, oleic acid and palmitic acid with previously established 5-LOX-/COX-1 inhibitory actions were identified as major constituents of the n-hexane extract and thus seem to contribute to the plant's in vitro activity.

Solubility Information

Solubility	DMSO: 60 mg/mL (249.74 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	4.1623 mL	20.8117 mL	41.6233 mL
5 mM	0.8325 mL	4.1623 mL	8.3247 mL
10 mM	0.4162 mL	2.0812 mL	4.1623 mL
50 mM	0.0832 mL	0.4162 mL	0.8325 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

Further phenols and polyacetylenes from the rhizomes of *Atractylodes lancea* and their anti-inflammatory activity. *Planta Med.* 2001 Jul;67(5):437-42.

Antioxidant activity of constituents from *Atractylodes lancea*. *Pharmaceutical and pharmacological letters*, 1998, 8 (2):69-71.

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