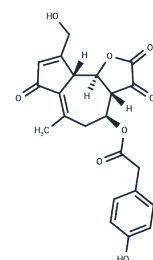


Lactupicrin

Chemical Properties

CAS No. :	65725-11-3
Formula:	C ₂₃ H ₂₂ O ₇
Molecular Weight:	410.42
Storage:	Keep away from direct sunlight 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	Lactupicrin is a natural product discovered in chicory, exhibiting analgesic, sedative, antimalarial, and anti-atherosclerotic effects. It inhibits NF-κB activation and LDLR1 production, and demonstrates inhibitory activity against yeast alpha-glucosidase (IC ₅₀ = 14.71 μM).
Targets(IC ₅₀)	NF-κB,Parasite,Glucosidase,LDLR
In vitro	Lactupicrin (0.25-1 μM, 24 hours) attenuates cholesterol influx into low-grade inflammatory macrophages by targeting LOX-1 [2]. In inflammatory macrophages, Lactupicrin (0.625-40 μM, 24 hours) inhibits the activity of NF-κB within inflammatory macrophages [3]. In inflammatory macrophages, Lactupicrin (40 μM, 24 hours) suppresses the nuclear translocation process of p65 by downregulating cytoplasmic dynein-mediated transport of p65 [3]. Lactupicrin (50 μg/L, 48 hours) exhibits complete inhibitory effects on parasite growth [4]. Lactupicrin (10-1000 μM, 45 minutes) dose-dependently inhibits AChE activity [4].
In vivo	Lactupicrin (15-30 mg/kg, intraperitoneal injection) exhibits analgesic activity and sedative properties in mice [1]. In ApoE ^{-/-} mice, Lactupicrin (1.2-120 mg/kg, oral administration, once daily for 12 weeks) exerts its anti-atherosclerotic effects by reducing LOX-1 in lipid rafts, thereby inhibiting macrophage foam cell formation [2]. In ApoE ^{-/-} mice, Lactupicrin (1.2-120 mg/kg, oral administration, once daily for 12 weeks) can suppress early atherosclerosis formation [3]. In ApoE ^{-/-} mice, Lactupicrin (1.2-120 mg/kg, oral administration, once daily for 12 weeks) dose-dependently reduces serum levels of IL-1β and TNF-α, but does not lower IL-6 levels [3].

Solubility Information

Solubility	DMSO: 200 mg/mL (487.31 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	2.4365 mL	12.1826 mL	24.3653 mL
5 mM	0.4873 mL	2.4365 mL	4.8731 mL
10 mM	0.2437 mL	1.2183 mL	2.4365 mL
50 mM	0.0487 mL	0.2437 mL	0.4873 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

Wesołowska A, et, al. Analgesic and sedative activities of lactucin and some lactucin-like guaianolides in mice. *J Ethnopharmacol.* 2006 Sep 19;107(2):254-8.

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He L, et al. Lactucopicrin Inhibits Cytoplasmic Dynein-Mediated NF- κ B Activation in Inflamed Macrophages and Alleviates Atherogenesis in Apolipoprotein E-Deficient Mice. *Mol Nutr Food Res.* 2021 Feb;65(4):e2000989.

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Rollinger JM, et al. Application of the in combo screening approach for the discovery of non-alkaloid acetylcholinesterase inhibitors from *Cichorium intybus*. *Curr Drug Discov Technol.* 2005 Sep;2(3):185-93.

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