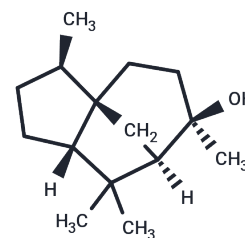


Cedrol

Chemical Properties

CAS No. :	77-53-2
Formula:	C ₁₅ H ₂₆ O
Molecular Weight:	222.37
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	Cedrol is a cedrane sesquiterpenoid and a tertiary alcohol, Cedrol inhibits the cytochrome P450 (CYP) isoforms CYP2B6 and CYP3A4 (K _i s = 0.9 and 3.4 μM, respectively)
Targets(IC50)	Apoptosis, Caspase, Antifungal, Cytochromes P450, PAFR
In vitro	Cedrol inhibits the growth of <i>L. sulphureus</i> , <i>G. trabeum</i> , <i>L. betulina</i> , and <i>T. versicolor</i> wood decay fungi when used at a concentration of 100 μg/ml[1]. Cedrol inhibits the cytochrome P450 (CYP) isoforms CYP2B6 and CYP3A4 (K _i s = 0.9 and 3.4 μM, respectively) [2].
In vivo	In vivo, cedrol (200 mg/kg) prevents hair follicle dystrophy and reduces hair loss in a mouse model of alopecia induced by cyclophosphamide[3]
Cell Research	The inhibitory potencies (IC ₅₀ values) of β-cedrene, cedrol, thujopsene, and a CYP2B6 inhibitor, thioTEPA, of CYP2B6-catalyzed bupropion hydroxylase activity were evaluated in pooled human liver microsomes and cDNA-expressed CYP2B6 using LCMS/MS. Incubation mixtures were prepared in a total volume of 100 μl, including 1 mM NADPH, 10 mM MgCl ₂ , 50 mM potassium phosphate buffer (pH 7.4), various concentrations of β-cedrene, cedrol, thujopsene, or thioTEPA, pooled human liver microsomes (0.2 mg/ml) or human cDNA-expressed CYP2B6 (0.4 pmol), and a CYP2B6-selective substrate 50 μM bupropion. After a 3-min preincubation at 37°C, the reactions were initiated by adding NADPH and were incubated for 15 min at 37°C in a shaking water bath. The reaction was terminated by placing tubes on ice and adding 100 μl ice-cold d9-1-hydroxybupropion (internal standard) in methanol. Incubation mixtures were then centrifuged at 13,000×g for 4 min at 4°C. All incubations were performed in triplicate, and average values were used. To evaluate NADPH-dependent mechanism-based inhibition, various concentrations of β-cedrene, cedrol, thujopsene, and thioTEPA were preincubated for 30 min with pooled human liver microsomes in the presence of NADPH. The reaction was started by bupropion addition[2].
Animal Research	Acute toxicity, skin irritation and skin sensitization tests of cedrol were conducted before the experiment, which suggested that cedrol had hardly toxic and side effects. Three different doses of cedrol prepared in 85% ethanol were spread on the dorsal skin of mice 2 days after depilation for several consecutive days until the mice were all sacrificed under an ether atmosphere to evaluate whether topical treatment with cedrol may prevent or alleviate CYP-induced alopecia[3].

Solubility Information

Solubility	DMSO: 45 mg/mL (202.37 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	4.497 mL	22.485 mL	44.9701 mL
5 mM	0.8994 mL	4.497 mL	8.994 mL
10 mM	0.4497 mL	2.2485 mL	4.497 mL
50 mM	0.0899 mL	0.4497 mL	0.8994 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

CHENG, SenSung, CHUNG, et al. Phytochemicals from Cunninghamia konishii Hayata Act as Antifungal Agents[J]. Journal of Agricultural & Food Chemistry, 2012, 60(1):124-8.

Özek G, Schepetkin I A, Yermagambetova M, et al. Innate Immunomodulatory Activity of Cedrol, a Component of Essential Oils Isolated from Juniperus Species. Molecules. 2021, 26(24): 7644.

Jeong H U , Kwon S S , Kong T Y , et al. Inhibitory Effects of Cedrol, β -Cedrene, and Thujopsene on Cytochrome P450 Enzyme Activities in Human Liver Microsomes[J]. Journal of Toxicology and Environmental Health, Part A, 2014, 77 (22-24):1522-1532.

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