Cedrol

Cat. No.: HY-N2071

CAS No.: 77-53-2

Molecular Formula: $C_{15}H_{26}O$

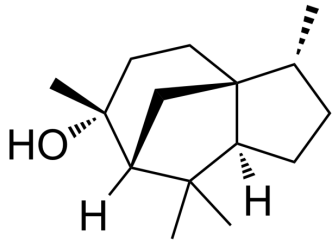
Molecular Weight: 222.37

Target: Cytochrome P450; Fungal

Pathway: Metabolic Enzyme/Protease; Anti-infection

Storage: 4°C, protect from light

* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 110 mg/mL (494.67 mM; Need ultrasonic)

H_2O : < 0.1 mg/mL (insoluble)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	4.4970 mL	22.4850 mL	44.9701 mL
5 mM	0.8994 mL	4.4970 mL	8.9940 mL
10 mM	0.4497 mL	2.2485 mL	4.4970 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: 2.75 mg/mL (12.37 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.75 mg/mL (12.37 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.75 mg/mL (12.37 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Cedrol is a bioactive sesquiterpene, a potent competitive inhibitor of cytochrome P-450 (CYP) enzymes. Cedrol inhibits CYP2B6-mediated bupropion hydroxylase and CYP3A4-mediated midazolam hydroxylation with K_i of 0.9 μM and 3.4 μM, respectively. Cedrol also has weak inhibitory effect on CYP2C8, CYP2C9, and CYP2C19 enzymes[1]. Cedrol is found in cedar essential oil and poetesses anti-septic, anti-inflammatory, anti-spasmodic, tonic, astringent, diuretic, insecticidal, and anti-fungal activities[2].

IC_{50} & Target	CYP2	CYP3

CUSTOMER VALIDATION

- Curr Top Nutraceutical Res. 2022 Jan 27.

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REFERENCES

[1]. Jeong HU, et al. Inhibitory effects of cedrol, β-cedrene, and thujopsene on cytochrome P450 enzyme activities in human liver microsomes. J Toxicol Environ Health A. 2014;77(22-24):1522-32.

[2]. Jin MH, et al. Cedrol Enhances Extracellular Matrix Production in Dermal Fibroblasts in a MAPK-Dependent Manner. Ann Dermatol. 2012 Feb;24(1):16-21

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