(R)-Citronellol

Cat. No.: HY-124257

CAS No.: 1117-61-9

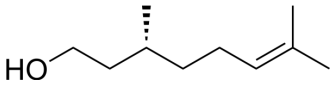
Molecular Formula: $C_{10}H_{20}O$

Molecular Weight: 156.27

Target: Endogenous Metabolite

Pathway: Metabolic Enzyme/Protease

Storage: 4°C, sealed storage, away from moisture
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (639.92 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	6.3992 mL	31.9959 mL	63.9918 mL
5 mM	1.2798 mL	6.3992 mL	12.7984 mL
10 mM	0.6399 mL	3.1996 mL	6.3992 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: ≥ 2.5 mg/mL (16.00 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (16.00 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (16.00 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

(R)-Citronellol (D-Citronellol) is an alcoholic monoterpene found in geranium essential oil. (R)-Citronellol inhibits degranulation of mast cells and does not affect caffeine bitterness perception. (R)-Citronellol can be used in decorative cosmetics, toiletries as well as in non-cosmetic products[1][2][3].

In Vitro

0.5 mM (R)-Citronellol (D-Citronellol) inhibits degranulation of cultured mast cells (CMCs) by 21.3%[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Suess B, et al. The Odorant (R)-Citronellal Attenuates Caffeine Bitterness by Inhibiting the Bitter Receptors TAS2R43 and TAS2R46. J Agric Food Chem. 2018 Mar 14;66(10):2301-2311.

[2]. Kobayashi Y, et al. Inhibitory effects of geranium essential oil and its major component, citronellol, on degranulation and cytokine production by mast cells. Biosci Biotechnol Biochem. 2016 Jun;80(6):1172-8.

[3]. Lapczynski A, et al. Fragrance material review on (+)-(R)-citronellol. Food Chem Toxicol. 2008 Nov;46 Suppl 11:S114-6.

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