Linalool-d_3

Cat. No.: HY-N0368S

CAS No.: 1216673-02-7

Molecular Formula: $C_{10}H_{15}D_3O$

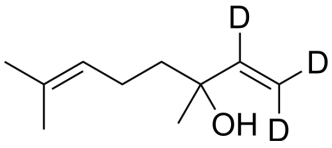
Molecular Weight: 157.27

Target: Apoptosis; iGluR; Endogenous Metabolite

Pathway: Apoptosis; Membrane Transporter/Ion Channel; Neuronal Signaling; Metabolic Enzyme/Protease

Storage:

Pure form	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (635.85 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	6.3585 mL	31.7925 mL	63.5849 mL
5 mM	1.2717 mL	6.3585 mL	12.7170 mL
10 mM	0.6358 mL	3.1792 mL	6.3585 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 (15.90 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (15.90 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (15.90 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Linalool-d_3 is the deuterium labeled Linalool[1]. Linalool is natural monoterpene in essential olis of coriander, acts as a competitive antagonist of Nmethyl d-aspartate (NMDA) receptor, with anti-tumor, anti-cardiotoxicity activity[2].Linalool is a PPARα ligand that reduces plasma TG levels and rewires the hepatic transcriptome and plasma metabolome[3].

In Vitro

Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to

affect the pharmacokinetic and metabolic profiles of drugs[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019 Feb;53(2):211-216.

[2]. Oner Z1, et al. The protective and therapeutic effects of linalool against doxorubicin-induced cardiotoxicity in Wistar albino rats. Hum Exp Toxicol. 2019 Apr 12:960327119842634.

[3]. Jun HJ, et al. Linalool is a PPARα ligand that reduces plasma TG levels and rewires the hepatic transcriptome and plasma metabolome. J Lipid Res. 2014 Jun55(6):1098-110.

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