Eugenol-d_3

Cat. No.: HY-N0337S

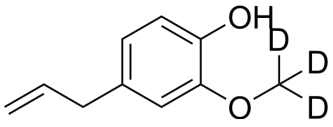
CAS No.: 1335401-17-6

Molecular Formula: $C_{10}H_9D_3O_2$

Molecular Weight: 167.22

Target: Apoptosis; Bacterial; Parasite; Ferroptosis; Reactive Oxygen Species

Pathway: Apoptosis; Anti-infection; Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB



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 (598.01 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	5.9801 mL	29.9007 mL	59.8015 mL
	5 mM	1.1960 mL	5.9801 mL	11.9603 mL
	10 mM	0.5980 mL	2.9901 mL	5.9801 mL

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

BIOLOGICAL ACTIVITY

Description

Eugenol-d_3 is the deuterium labeled Eugenol. Eugenol is an essential oil found in cloves with antibacterial, anthelmintic and antioxidant activity. Eugenol is shown to inhibit lipid peroxidation.

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;53(2):211-216.

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[3]. Reddy AC, et al. Studies on the inhibitory effects of curcumin and eugenol on the formation of reactive oxygenspecies and the oxidation of ferrous iron. Mol Cell Biochem. 1994 Aug 17;137(1):1-8.

[4]. Garabadu D, et al. Protective effect of eugenol against restraint stress-induced gastrointestinal dysfunction: Potential use in irritable bowel syndrome. Pharm Biol. 2015 Jul;53(7):968-74.

[5]. Sharma JN, et al. Suppressive effects of eugenol and ginger oil on arthritic rats. Pharmacology. 1994 Nov;49(5):314-8.

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