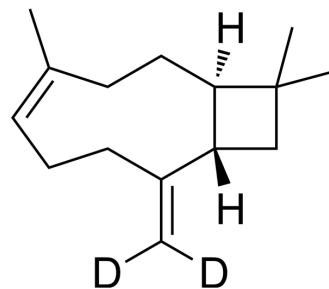


β-Caryophyllene-d₂

Cat. No.:	HY-N1415S
CAS No.:	2006272-96-2
Molecular Formula:	C ₁₅ H ₂₂ D ₂
Molecular Weight:	206.36
Target:	Cannabinoid Receptor; Endogenous Metabolite
Pathway:	GPCR/G Protein; Neuronal Signaling; Metabolic Enzyme/Protease
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

Ethanol : ≥ 176.67 mg/mL (856.13 mM)
 Ethanol : ≥ 176.67 mg/mL (856.13 mM)
 DMSO : 50 mg/mL (242.30 mM; ultrasonic and warming and heat to 60°C)
 DMSO : 50 mg/mL (242.30 mM; ultrasonic and warming and heat to 60°C)
 H₂O : 0.67 mg/mL (3.25 mM; Need ultrasonic)
 H₂O : 0.67 mg/mL (3.25 mM; Need ultrasonic)
 * "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		4.8459 mL	24.2295 mL	48.4590 mL
	5 mM		0.9692 mL	4.8459 mL	9.6918 mL
	10 mM		0.4846 mL	2.4230 mL	4.8459 mL

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

BIOLOGICAL ACTIVITY

Description

β-Caryophyllene-d₂ is deuterium labeled β-Caryophyllene. β-Caryophyllene is a CB2 receptor agonist.

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.

[2]. Cheng Y, et al. β -Caryophyllene ameliorates the Alzheimer-like phenotype in APP/PS1 Mice through CB2 receptor activation and the PPAR γ pathway. *Pharmacology*. 2014;94(1-2):1-12.

[3]. Dahham SS, et al. The Anticancer, Antioxidant and Antimicrobial Properties of the Sesquiterpene β -Caryophyllene from the Essential Oil of *Aquilaria crassna*. *Molecules*. 2015 Jun 26;20(7):11808-29.

[4]. de Oliveira CC, et al. Anticonvulsant activity of β -caryophyllene against pentylenetetrazol-induced seizures. *Epilepsy Behav*. 2016 Mar;56:26-31.

Caution: Product has not been fully validated for medical applications. For research use only.

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