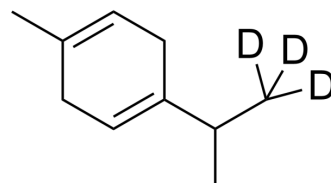


γ-Terpinene-d₃

Cat. No.:	HY-W020183S
Molecular Formula:	C ₁₀ H ₁₃ D ₃
Molecular Weight:	139.25
Target:	Isotope-Labeled Compounds
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	γ-Terpinene-d ₃ is deuterated labeled Cinnamyl Alcohol (HY-Y0078). Cinnamyl Alcohol is an active component from chestnut flower, inhibits increased PPARγ expression, with anti-obesity activity ^[1] .
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.
In Vivo	γ-Terpinene (γ-TPN; 12.5, 25?mg/kg; p.o.; single dose) significantly reduces the licking time of the stimulated paw in both phases of the test in male Swiss mice (20-30?g) ^[2] . γ-Terpinene given either systemically (p.o.; 1.56, 3.125, and 6.25?mg/kg) or centrally (i.t or i.c.v; 10 and 20?μg/site) causes significant inhibition of glutamate-induced nociception in mice ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Flávia Franceli de Brito Passos, et al. Involvement of Cholinergic and Opioid System in γ-Terpinene-Mediated Antinociception. *Evid Based Complement Alternat Med.* 2015;2015:829414.
- [2]. Guo-Xiang Li, et al. Unusual antioxidant behavior of alpha- and gamma-terpinene in protecting methyl linoleate, DNA, and erythrocyte. *J Agric Food Chem.* 2009 May 13;57(9):3943-8.
- [3]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019 Feb;53(2):211-216.

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

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