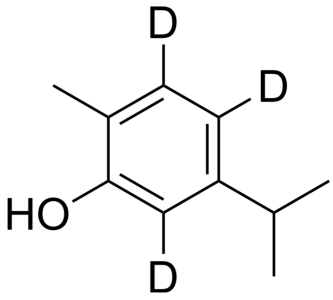
Carvacrol-d_3

Cat. No.:	HY-N0711S
Molecular Formula:	$C_{10}H_{11}D_3O$
Molecular Weight:	153.24
Target:	Endogenous Metabolite; Apoptosis; Bacterial; Fungal; Notch; Isotope-Labeled Compounds
Pathway:	Metabolic Enzyme/Protease; Apoptosis; Anti-infection; Neuronal Signaling; Stem Cell/Wnt; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Carvacrol-d_3 is deuterated labeled trans-2-Nonenal (HY-W089800). trans-2-Nonenal is a biochemical reagent that can be used as a biological material or organic compound for life science related research.
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	Carvacrol (50 or 100 mg/kg; i.p.) inhibits the mechanical hyper-nociception induced by carrageenan in mice[3]. Carvacrol (20, 40, and 80 mg/kg, intragastric gavage, during six days before LPS injection) reduces inflammation (reduces serum proinflammatory molecules) in rats[4]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Khan F, et al. Carvacrol Induced Program Cell Death and Cell Cycle Arrest in Androgen-Independent Human Prostate Cancer Cells via Inhibition of Notch Signaling. Anticancer Agents Med Chem. 2019 Jul 31.

[2]. Kara M, et al. Supplemental carvacrol can reduce the severity of inflammation by influencing the production of mediators of inflammation. Inflammation. 2015;38(3):1020-7.

[3]. Suntres ZE, et al. The bioactivity and toxicological actions of carvacrol. Crit Rev Food Sci Nutr. 2015;55(3):304-18.

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

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