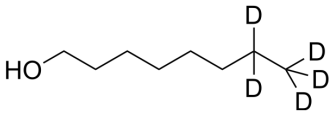
1-Octanol-d_5

Cat. No.:	HY-W032013S3
Molecular Formula:	$C_8H_{13}D_5O$
Molecular Weight:	135.26
Target:	Calcium Channel; Endogenous Metabolite; Isotope-Labeled Compounds
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling; Metabolic Enzyme/Protease; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	1-Octanol-d_5 is deuterated labeled Carvacrol (HY-N0711). Carvacrol is an orally active monoterpenic phenol that can be extract from an abundant number of aromatic plants, including thyme and oregano, possessing antioxidant, antibacterial, antifungal, anticancer, anti-inflammatory, hepatoprotective, spasmolytic, and vasorelaxant properties. Carvacrol also causes cell cycle arrest in G0/G1, downregulates Notch-1, and Jagged-1, and induces apoptosis. Carvacrol is used in low concentrations as a food flavoring ingredient and preservative, as well as a fragrance ingredient in cosmetic formulations[1] [2].
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]. 1-octanol inhibits native T-currents at subanesthetic concentrations with an IC_{50} of approximately 4 μM. In contrast, 1-octanol is up to 30-fold less potent in inhibiting recombinant $Ca_V3.3$ T-channels heterologously expressed in human embryonic kidney cells[2]. 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.

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

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