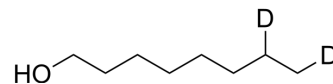


## 1-Octanol-d<sub>2</sub>-1

Cat. No.:	HY-W032013S2
CAS No.:	1335435-64-7
Molecular Formula:	C <sub>8</sub> H <sub>16</sub> D <sub>2</sub> O
Molecular Weight:	132.24
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 <sub>2</sub> -1 is deuterated labeled Cinnamyl acetate (HY-N7125). Cinnamyl acetate has a wide application in the flavor and fragrance industry <sup>[1]</sup> . Cinnamyl acetate is a new broad spectrum antibacterial agent <sup>[2]</sup> .
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 <sup>[1]</sup> . 1-octanol inhibits native T-currents at subanesthetic concentrations with an IC <sub>50</sub> of approximately 4 μM. In contrast, 1-octanol is up to 30-fold less potent in inhibiting recombinant Ca <sub>v</sub> 3.3 T-channels heterologously expressed in human embryonic kidney cells <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

- [1]. Joksovic PM, et al. Mechanisms of inhibition of T-type calcium current in the reticular thalamic neurons by 1-octanol: implication of the protein kinase C pathway. *Mol Pharmacol.* 2010 Jan;77(1):87-94.
- [2]. Akhtar MK, et al. Microbial production of 1-octanol: A naturally excreted biofuel with diesel-like properties. *Metab Eng Commun.* 2014 Nov 13;2:1-5.
- [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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