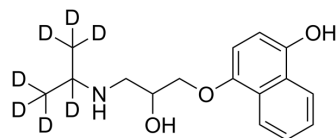


## 4-Hydroxypropranolol-d<sub>7</sub>

<b>Cat. No.:</b>	HY-100634SA
<b>CAS No.:</b>	1219908-86-7
<b>Molecular Formula:</b>	C <sub>16</sub> H <sub>14</sub> D <sub>7</sub> NO <sub>3</sub>
<b>Molecular Weight:</b>	282.39
<b>Target:</b>	Adrenergic Receptor; Isotope-Labeled Compounds
<b>Pathway:</b>	GPCR/G Protein; Neuronal Signaling; Others
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	4-Hydroxypropranolol-d <sub>7</sub> is the deuterium labeled 4-Hydroxypropranolol hydrochloride. 4-Hydroxypropranolol hydrochlorid is an active metabolite of Propranolol. 4-Hydroxypropranolol hydrochlorid is of comparable potency to Propranolol. 4-Hydroxypropranolol hydrochlorid inhibits β <sub>1</sub> - and β <sub>2</sub> -adrenergic receptors with pA <sub>2</sub> values of 8.24 and 8.26, respectively. 4-Hydroxypropranolol hydrochlorid has intrinsic sympathomimetic activity, membrane stabilizing activity and potent antioxidant properties <sup>[1][2][3]</sup> .
<b>In Vitro</b>	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> . 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]. Fitzgerald JD, et al. Pharmacology of 4-hydroxypropranolol, a metabolite of propranolol. *Br J Pharmacol.* 1971 Sep;43(1):222-35.
- [3]. Nelson WL, et al. The 3,4-catechol derivative of propranolol, a minor dihydroxylated metabolite. *J Med Chem.* 1984 Jul;27(7):857-61.
- [4]. Ivan Tong Mak, et al. Potent Antioxidant Properties of 4-Hydroxyl-propranolol. *Journal of Pharmacology and Experimental Therapeutics.* 2004, 308(1):85-90.

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

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