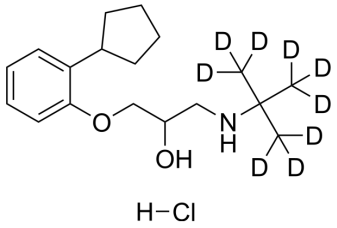
(±)-Penbutolol-d_9 hydrochloride

Cat. No.:	HY-116790BSA
CAS No.:	1346605-01-3
Molecular Formula:	$C_{18}H_{21}D_9ClNO_2$
Molecular Weight:	336.94
Target:	Adrenergic Receptor; Isotope-Labeled Compounds
Pathway:	GPCR/G Protein; Neuronal Signaling; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	(±)-Penbutolol-d_9 (hydrochloride) is a deuterium labeled (±)-Penbutolol hydrochloride. (+)-Penbutolol hydrochloride is a β-adrenoceptor antagonist, with an IC50 of 0.74 μM[1].
IC_{50} & Target	β adrenergic receptor
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[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Chen M, et al. Effects of beta-adrenoceptor antagonists on Ca(2+)-overload induced by lysophosphatidylcholine in rat isolated cardiomyocytes. Br J Pharmacol. 1996 Jun;118(4):865-70.

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

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

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