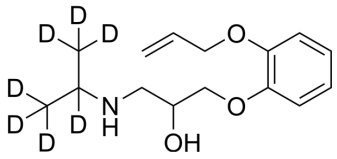
Oxprenolol-d_7

Cat. No.:	HY-B1486AS
CAS No.:	1189805-10-4
Molecular Formula:	$C_{15}H_{16}D_7NO_3$
Molecular Weight:	272.39
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	Oxprenolol-d_7 is the deuterium labeled Oxprenolol. Oxprenolol (Ba 39089 free base) is an orally bioavailable β-adrenergic receptor (β-AR) antagonist with a Ki of 7.10 nM in a radioligand binding assay using rat heart muscle[1].
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.

REFERENCES

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

[2]. T Nagatomo, et al. Binding Characteristics of ^{3}H-dihydroalprenolol to Beta-Adrenoceptors of Rat Heart Treated With Neuraminidase. Jpn J Pharmacol. 1983 Aug;33(4):851-7.

[3]. A S Manning, et al. Abrupt Withdrawal of Chronic Beta-Blockade: Adaptive Changes in Cyclic AMP and Contractility. J Mol Cell Cardiol. 1981 Nov;13(11):999-1009.

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