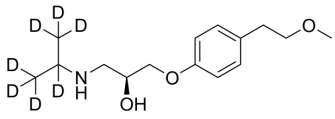
(S)-Metoprolol-d_7

Cat. No.:	HY-17503S2
CAS No.:	1292906-91-2
Molecular Formula:	$C_{15}H_{18}D_7NO_3$
Molecular Weight:	274.41
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	(S)-Metoprolol-d_7 is the deuterium labeled Metoprolol. Metoprolol (Toprol) is a selective β1 receptor blocker used in treatment of several diseases of the cardiovascular system, especially hypertension[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]. 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]. Benfield P, et al. Metoprolol. An updated review of its pharmacodynamic and pharmacokinetic properties, and therapeutic efficacy, in hypertension, ischaemic heart disease and related cardiovascular disorders. Drugs. 1986 May;31(5):376-429.

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