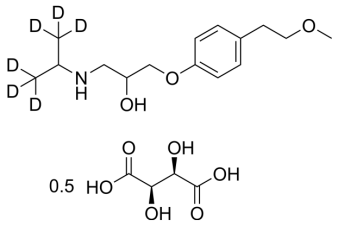
Metoprolol-d_6 tartrate

Cat. No.:	HY-17503BS
Molecular Formula:	$C_{19}H_{25}D_6NO_9$
Molecular Weight:	348.5
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	Metoprolol-d_6 (tartrate) is the deuterium labeled Metoprolol tartrate. Metoprolol is an orally active, selective β1-adrenoceptor antagonist. Metoprolol shows anti-inflammation, antitumor and anti-angiogenic properties[1][2][3][4].
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[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Hajatbeigi B, et al. Cytotoxicity of Metoprolol on Leukemic Cells in Vitro. IJBC 2018; 10(4): 124-129.

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

[3]. Ulleryd MA, et al. Metoprolol reduces proinflammatory cytokines and atherosclerosis in ApoE-/- mice. Biomed Res Int. 2014;2014:548783.

[4]. Wang D, et al. Carvedilol has stronger anti-inflammation and anti-virus effects than metoprolol in murine model with coxsackievirus B3-induced viral myocarditis. Gene. 2014 Sep 1;547(2):195-201.

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

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