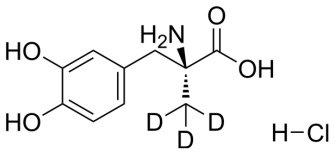
Methyldopa-d3 hydrochloride

Cat. No.:	HY-B0225AS
Molecular Formula:	$C_{10}H_{11}D_3ClNO_4$
Molecular Weight:	250.69
Target:	Adrenergic Receptor; Endogenous Metabolite; Isotope-Labeled Compounds
Pathway:	GPCR/G Protein; Neuronal Signaling; Metabolic Enzyme/Protease; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Methyldopa-d_3 (hydrochloride) is deuterium labeled Methyldopa (hydrochloride). Methyldopa hydrochloride (L-(-)-α-Methyldopa hydrochloride) hydrochloride, a potent antihyoertensive agent, is an alpha-adrenergic agonist (selective for α2-adrenergic receptors). Methyldopa hydrochloride is a proagent and is metabolized (α-Methylepinephrine) in the central nervous system[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]. Fox GR, et al. The effects of phenobarbital, atropine, L-alpha-methyldopa, and DL-propranolol on dieldrin-induced hyperglycemia in the adult rat. Toxicol Appl Pharmacol. 1985;78(3):342-350.

[3]. Sweet CS. New centrally acting antihypertensive drugs related to methyldopa and clonidine. Hypertension. 1984;6(5 Pt 2):II51-II56.

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