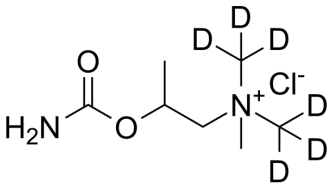
Bethanechol-d6 chloride

Cat. No.:	HY-B0406AS
Molecular Formula:	$C_7H_{11}D_6ClN_2O_2$
Molecular Weight:	202.71
Target:	mAChR
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Bethanechol-d6 (Carbamyl-β-methylcholine-d6) chloride is the deuterium labeled Bethanechol chloride. Bethanechol chloride (Carbamyl-β-methylcholine chloride), a parasympathomimetic agent, is a mAChR agonist that exerts its effects via directly stimulating the mAChR (M1, M2, M3, M4, and M5) of the parasympathetic nervous system[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]. Inderbir S. Padda, et al. Bethanechol. Treasure Island (FL): StatPearls Publishing; 2020 Jan-.

[3]. M J Fregly, et al. Bethanechol-induced water intake in rats: possible mechanisms of induction. Pharmacol Biochem Behav. 1982 Oct;17(4):727-32.

[4]. Julia Yuen Hang Liu, et al. Acetylcholine exerts inhibitory and excitatory actions on mouse ileal pacemaker activity: role of muscarinic versus nicotinic receptors. Am J Physiol Gastrointest Liver Physiol. 2020 Jul 1;319(1):G97-G107.

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