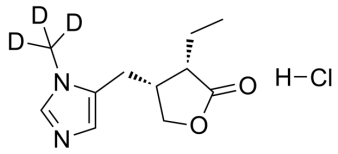
Pilocarpine-d_3 hydrochloride

Cat. No.:	HY-B0726S
CAS No.:	1217838-88-4
Molecular Formula:	$C_{11}H_{14}D_3ClN_2O_2$
Molecular Weight:	247.74
Target:	mAChR; 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	Pilocarpine-d_3 (hydrochloride) is deuterium labeled Pilocarpine (Hydrochloride). Pilocarpine Hydrochloride is a potent M3-type muscarinic acetylcholine receptor (M3 muscarinic receptor) agonist.
IC_{50} & Target	mAChR3
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]. Matsuzaki K, et al. Daily voluntary exercise enhances pilocarpine-induced saliva secretion and aquaporin 1 expression in rat submandibular glands. FEBS Open Bio. 2017 Dec 7;8(1):85-93.

[3]. Tonta MA, et al. Pilocarpine-induced relaxation of rat tail artery by a non-cholinergic mechanism and in the absence of an intact endothelium. Br J Pharmacol. 1994 Jun;112(2):525-32.

[4]. Wang RF, et al. Post-treatment with the GLP-1 analogue liraglutide alleviate chronic inflammation and mitochondrial stress induced by Status epilepticus. Epilepsy Res. 2018 Mar 9;142:45-52.

[5]. Yuan XL, et al. Cytotoxicity of pilocarpine to human corneal stromal cells and its underlying cytotoxic mechanisms. Int J Ophthalmol. 2016 Apr 18;9(4):505-11.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA