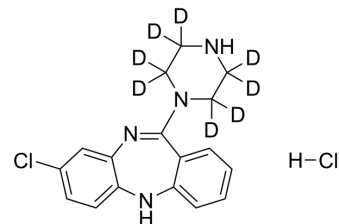


N-Desmethylclozapine-d₈ hydrochloride

Cat. No.:	HY-G0021S1		
CAS No.:	2705402-91-9		
Molecular Formula:	C ₁₇ H ₁₀ D ₈ Cl ₂ N ₄		
Molecular Weight:	357.31		
Target:	mAChR; Opioid Receptor; Drug Metabolite; Virus Protease		
Pathway:	GPCR/G Protein; Neuronal Signaling; Metabolic Enzyme/Protease; Anti-infection		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



BIOLOGICAL ACTIVITY

Description

N-Desmethylclozapine-d₈ (hydrochloride) is the deuterium labeled N-Desmethylclozapine hydrochloride. N-Desmethylclozapine hydrochloride is a major active metabolite of the atypical antipsychotic agent Clozapine. N-Desmethylclozapine hydrochloride is a potent, allosteric and partial M1 receptors agonist (EC₅₀=115 nM) and is able to potentiate hippocampal N-methyl-d-aspartate (NMDA) receptor currents through M1 receptor activation. N-Desmethylclozapine hydrochloride is also a δ-opioid agonist^{[1][2][3]}.

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]. Li Z, et al. N-desmethylclozapine, a major metabolite of clozapine, increases cortical acetylcholine and dopamine release in vivo via stimulation of M1 muscarinic receptors. *Neuropsychopharmacology.* 2005 Nov;30(11):1986-95.
- [3]. Odagaki Y, et al. Comparative analysis of pharmacological properties of xanomeline and N-desmethylclozapine in rat brain membranes. *J Psychopharmacol.* 2016 Sep;30(9):896-912.

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

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