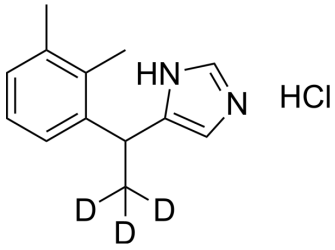
Medetomidine-d_3 hydrochloride

Cat. No.:	HY-17034BS
CAS No.:	1246820-20-1
Molecular Formula:	$C_{13}H_{14}D_3ClN_2$
Molecular Weight:	239.76
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	Medetomidine-d_3 (hydrochloride) is the deuterium labeled Medetomidine hydrochloride. Medetomidine hydrochloride is an agonist of adrenergic alpha-2 receptor[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]. Davies, M.F., et al., Activation of alpha2 adrenergic receptors suppresses fear conditioning: expression of c-Fos and phosphorylated CREB in mouse amygdala. Neuropsychopharmacology, 2004. 29(2): p. 229-39.

[3]. Menon, D.V., et al., Central sympatholysis as a novel countermeasure for cocaine-induced sympathetic activation and vasoconstriction in humans. J Am Coll Cardiol, 2007. 50(7): p. 626-33.

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