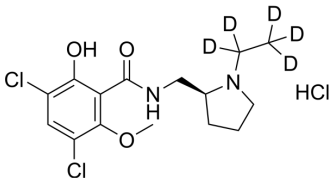
Raclopride-d_5 hydrochloride

Cat. No.:	HY-103414S
CAS No.:	1217623-85-2
Molecular Formula:	$C_{15}H_{16}D_5Cl_3N_2O_3$
Molecular Weight:	352.27
Target:	Dopamine Receptor; Isotope-Labeled Compounds
Pathway:	GPCR/G Protein; Neuronal Signaling; Others
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



BIOLOGICAL ACTIVITY

Description	Raclopride-d_5 (hydrochloride) is the deuterium labeled Raclopride. Raclopride is a dopamine D2/D3 receptor antagonist, which binds to D2 and D3 receptors with dissociation constants (Kis) of 1.8 nM and 3.5 nM, respectively, but has a very low affinity for D1 and D4 receptors with Kis of 18000 nM and 2400 nM, respectively[1][2].
IC_{50} & Target	D_3 Receptor
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]. Seeman P, et al. Dopamine receptor pharmacology. Trends Pharmacol Sci. 1994 Jul;15(7):264-70.

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