Paroxetine-d_4 hydrochloride

Cat. No.: HY-B0492S1

CAS No.: 2714485-95-5

Molecular Formula: $C_{19}H_{17}D_4ClFNO_3$

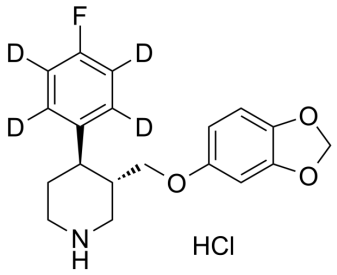
Molecular Weight: 369.85

Target: Serotonin Transporter; Autophagy; Isotope-Labeled Compounds

Pathway: Neuronal Signaling; Autophagy; Others

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



BIOLOGICAL ACTIVITY

Description	Paroxetine-d_4 (hydrochloride) is deuterium labeled Paroxetine (hydrochloride). Paroxetine hydrochloride is a potent selective serotonin-reuptake inhibitor, commonly prescribed as an and has GRK2 inhibitory ability with IC50 of 14 μM. Paroxetine hydrochloride can be used for the research of depressive disorder[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]. Lassen TR, et al. Effect of paroxetine on left ventricular remodeling in an in vivo rat model of myocardial infarction. Basic Res Cardiol. 2017 May;112(3):26.

[3]. Liu RP, et al. Paroxetine ameliorates lipopolysaccharide-induced microglia activation via differential regulation of MAPK signaling. J Neuroinflammation. 2014 Mar 12;11:47.

[4]. Waldschmidt HV, et al. Structure-Based Design of Highly Selective and Potent G Protein-Coupled Receptor Kinase 2 Inhibitors Based on Paroxetine. J Med Chem. 2017 Apr 13;60(7):3052-3069.

[5]. Wang Q, et al. Paroxetine alleviates T lymphocyte activation and infiltration to joints of collagen-induced arthritis. Sci Rep. 2017 Mar 28;7:45364.

[6]. Zarei M, et al. Paroxetine attenuates the development and existing pain in a rat model of neurophatic pain. Iran Biomed J. 2014;18(2):94-100.

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