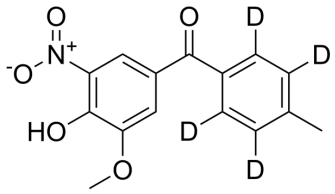
3-O-Methyltolcapone-d_4

Cat. No.:	HY-100642S1
CAS No.:	2469274-07-3
Molecular Formula:	$C_{15}H_9D_4NO_5$
Molecular Weight:	291.29
Target:	COMT; Isotope-Labeled Compounds
Pathway:	Metabolic Enzyme/Protease; Neuronal Signaling; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	3-O-Methyltolcapone-d_4 is the deuterium labeled 3-O-Methyltolcapone. 3-O-Methyltolcapone (Ro 40-7591) is a metabolite of Tolcapone. Tolcapone is an orally active, reversible, selective and potent COMT inhibitor. Tolcapone crosses the blood-brain barrier, and can be used for treatment of Parkinson's disease[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]. Jorga K, et al. Metabolism and excretion of tolcapone, a novel inhibitor of catechol-O-methyltransferase. Br J Clin Pharmacol. 1999 Oct;48(4):513-20.

[3]. Ceravolo R, et al. 18F-dopa PET evidence that tolcapone acts as a central COMT inhibitor in Parkinson's disease. Synapse. 2002 Mar 1;43(3):201-7.

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