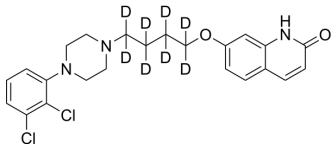
Dehydroaripiprazole-d_8

Cat. No.:	HY-100665S
CAS No.:	2749328-53-6
Molecular Formula:	$C_{23}H_{17}D_8Cl_2N_3O_2$
Molecular Weight:	454.42
Target:	5-HT 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	Dehydroaripiprazole-d_8 is deuterium labeled Dehydroaripiprazole. Dehydroaripiprazole (OPC-14857) is an active metabolite of Aripiprazole. Aripiprazole is an antipsychotic agent and is metabolized by CYP3A4 and CYP2D6 forming mainly Dehydroaripiprazole. Dehydroaripiprazole has with antipsychotic activity equivalent to Aripiprazole[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]. Hui-ChingHuang, et al. Detection and quantification of aripiprazole and its metabolite, dehydroaripiprazole, by gas chromatography–mass spectrometry in blood samples of psychiatric patients. Journal of Chromatography B. Volume 856, Issues 1-2, 1 September 2007, Pages 57-61.

[2]. Kirschbaum KM, et al. Serum levels of aripiprazole and dehydroaripiprazole, clinical response and side effects. World J Biol Psychiatry. 2008;9(3):212-8.

[3]. Lin SK, et al. Aripiprazole and dehydroaripiprazole plasma concentrations and clinical responses in patients with schizophrenia. J Clin Psychopharmacol. 2011 Dec;31(6):758-62.

[4]. Stip E, Tourjman V. et al. Aripiprazole in schizophrenia and schizoaffective disorder: A review. Clin Ther. 2010;32 Suppl 1:S3-20.

[5]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.

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