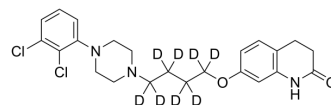


## Aripiprazole (1,1,2,2,3,3,4,4-d<sub>8</sub>)

<b>Cat. No.:</b>	HY-14546S1		
<b>CAS No.:</b>	1089115-04-7		
<b>Molecular Formula:</b>	C <sub>23</sub> H <sub>19</sub> D <sub>8</sub> Cl <sub>2</sub> N <sub>3</sub> O <sub>2</sub>		
<b>Molecular Weight:</b>	456.43		
<b>Target:</b>	5-HT Receptor; Isotope-Labeled Compounds		
<b>Pathway:</b>	GPCR/G Protein; Neuronal Signaling; Others		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### BIOLOGICAL ACTIVITY

<b>Description</b>	Aripiprazole (1,1,2,2,3,3,4,4-d <sub>8</sub> ) is the deuterium labeled Aripiprazole. Aripiprazole (OPC-14597) is a human 5-HT <sub>1A</sub> receptor partial agonist with a K <sub>i</sub> of 4.2 nM <sup>[1][2]</sup> .
<b>In Vitro</b>	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 <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### CUSTOMER VALIDATION

- Nat Neurosci. 2021 Dec 9.
- Chemosphere. 2019 Jun;225:378-387.
- Acta Pharmacol Sin. 2021 May 11.
- Int J Pharmaceut. 2020 Jun 15;583:119361.
- Korean J Physiol Pharmacol. 2020 Nov 1;24(6):545-553.

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### REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.
- [2]. Stip E, Tourjman V. et al. Aripiprazole in schizophrenia and schizoaffective disorder: A review. Clin Ther. 2010;32 Suppl 1:S3-20.
- [3]. Burris KD, Molski TF, Xu C et al. Aripiprazole, a novel antipsychotic, is a high-affinity partial agonist at human dopamine D<sub>2</sub> receptors. J Pharmacol Exp Ther. 2002 Jul;302(1):381-9.
- [4]. Swainston Harrison T, Perry CM. Aripiprazole: a review of its use in schizophrenia and schizoaffective disorder. Drugs. 2004;64(15):1715-36.

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[5]. Nagasaka Y, Oda K, Iwatsubo T, Kawamura A, Usui T. Nagasaka Y, Oda K, Iwatsubo T, Kawamura A, Usui T. Effects of aripiprazole and its active metabolite dehydroaripiprazole on the activities of drug efflux transporters expressed both in the intestine and at the blood-brain barrier. *Biopharm Drug Dispos.* 2012 Jul 27. doi: 10.1002/bdd.1801.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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