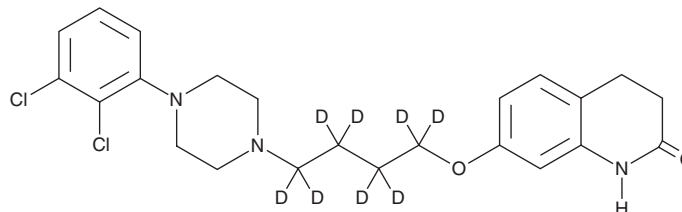


# PRODUCT INFORMATION



## Aripiprazole-d<sub>8</sub> Item No. 28487

**CAS Registry No.:** 1089115-04-7  
**Formal Name:** 7-[4-[4-(2,3-dichlorophenyl)-1-piperazinyl]butoxy-1,1,2,2,3,3,4,4-d<sub>8</sub>]-3,4-dihydro-2(1H)-quinolinone  
**MF:** C<sub>23</sub>H<sub>19</sub>Cl<sub>2</sub>D<sub>8</sub>N<sub>3</sub>O<sub>2</sub>  
**FW:** 456.4  
**Chemical Purity:** ≥98% (Aripiprazole)  
**Deuterium Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>8</sub>); ≤1% d<sub>0</sub>  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Aripiprazole-d<sub>8</sub> is intended for use as an internal standard for the quantification of aripiprazole (Item No. 19989) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Aripiprazole-d<sub>8</sub> is supplied as a solid. A stock solution may be made by dissolving the aripiprazole-d<sub>8</sub> in the solvent of choice, which should be purged with an inert gas. Aripiprazole-d<sub>8</sub> is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of aripiprazole-d<sub>8</sub> in these solvents is approximately 1, 25, and 30 mg/ml, respectively.

### Description

Aripiprazole is an atypical antipsychotic.<sup>1</sup> It is a partial agonist at dopamine D<sub>2</sub>, D<sub>2L</sub>, and D<sub>3</sub> receptors (K<sub>s</sub> = 3.3, 0.74, 9.7 nM, respectively), a partial agonist of the serotonin (5-HT) receptor subtype 5-HT<sub>1A</sub> (K<sub>i</sub> = 5.6 nM), and an inverse agonist of 5-HT<sub>2B</sub> receptors (K<sub>i</sub> = 0.36 nM). It is functionally selective at the dopamine D<sub>2</sub> receptor with cell-type- and function-selective activities. Aripiprazole inhibits disruptions in prepulse inhibition induced by phencyclidine in mice when administered at doses of 5 and 10 mg/kg.<sup>2</sup> Formulations containing aripiprazole have been used in the treatment of schizophrenia, bipolar mania or mixed episodes, and Tourette's disorder.

### References

1. Shapiro, D.A., Renock, S., Arrington, E., *et al.* Aripiprazole, a novel atypical antipsychotic drug with a unique and robust pharmacology. *Neuropsychopharmacology* **28(8)**, 1400-1411 (2003).
2. Fejgin, K., Safonov, S., Pålsson, E., *et al.* The atypical antipsychotic, aripiprazole, blocks phencyclidine-induced disruption of prepulse inhibition in mice. *Psychopharmacology (Berl.)* **191(2)**, 377-385 (2007).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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