## **Product** Data Sheet

## (±)-cis-Sertraline-d3 hydrochloride

Cat. No.: HY-B0176AS1

CAS No.: 1217741-83-7 Molecular Formula:  $C_{17}H_{15}D_3Cl_3N$ 

Molecular Weight: 345.71

Target: Serotonin Transporter
Pathway: Neuronal Signaling

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

## **BIOLOGICAL ACTIVITY**

Description	(±)-cis-Sertraline-d3 hydrochloride is the deuterium labeled Sertraline hydrochloride. Sertraline hydrochloride is an antidepressant of the selective serotonin reuptake inhibitor (SSRI) class. Sertraline hydrochloride is researched for a number of diseases, such as major depressive disorder and obsessive <sup>[1][2]</sup> .
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 <sup>[1]</sup> .  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]. Murdoch D, et al. Sertraline. A review of its pharmacodynamic and pharmacokinetic properties, and therapeutic potential in depression and obsessive-compulsive disorder. Drugs. 1992 Oct;44(4):604-24.
- [3]. Koe BK. Preclinical pharmacology of sertraline: a potent and specific inhibitor of serotonin reuptake. J Clin Psychiatry. 1990 Dec;51 Suppl B:13-7.
- [4]. Xiang X, et, al. Anti-depressive Effect of Arctiin by Attenuating Neuroinflammation via HMGB1/TLR4- And TNF-α/TNFR1-mediated NF-κB Activation. ACS Chem Neurosci. 2020 Jul 1.
- [5]. Lei M, et, al. Sex Differences in Antidepressant Effect of Sertraline in Transgenic Mouse Models. Front Cell Neurosci. 2019 Feb 1; 13:24.

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

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