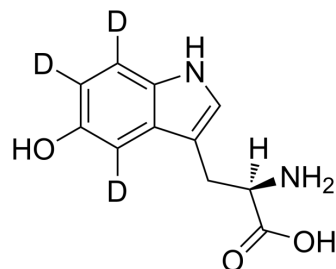


## L-5-Hydroxytryptophan-d<sub>3</sub>-1

Cat. No.:	HY-B1716S1
Molecular Formula:	C <sub>11</sub> H <sub>9</sub> D <sub>3</sub> N <sub>2</sub> O <sub>3</sub>
Molecular Weight:	223.24
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	L-5-Hydroxytryptophan-d <sub>3</sub> -1 is the deuterium labeled L-5-Hydroxytryptophan[1]. L-5-Hydroxytryptophan (L-5-HTP), a naturally occurring amino acid and a dietary supplement for use as an antidepressant, appetite suppressant, and sleep aid, is the immediate precursor of the neurotransmitter serotonin and a reserpine antagonist[2]. L-5-Hydroxytryptophan (L-5-HTP) is used to treat fibromyalgia, myoclonus, migraine, and cerebellar ataxia[3][4][5][6].
<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.

### REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019 Feb;53(2):211-216.
- [2]. ARVID CARLSSON, et al. 3,4-Dihydroxyphenylalanine and 5-Hydroxytryptophan as Reserpine Antagonists. *Nature* 180, page1200 (1957).
- [3]. Caruso I, et al. Double-blind study of 5-hydroxytryptophan versus placebo in the treatment of primary fibromyalgia syndrome. *J Int Med Res*. 1990 May-Jun18(3):201-9.
- [4]. Thal LJ, et al. Treatment of myoclonus with L-5-hydroxytryptophan and carbidopa: clinical, electrophysiological, and biochemical observations. *Ann Neurol*. 1980 Jun7(6):570-6.
- [5]. Boiardi A, et al. 5-OH-Tryptophane in migraine: clinical and neurophysiological considerations. *J Neurol*. 1981225(1):41-6.
- [6]. Trouillas P, et al. Improvement of cerebellar ataxia with levorotatory form of 5-hydroxytryptophan. A double-blind study with quantified data processing. *Arch Neurol*. 1988 Nov45(11):1217-22.

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

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