
Product Data Sheet

Product Name: L-5-Hydroxytryptophan-d3

Cat. No.: GC69348

Chemical Properties

Cas. No. 1276197-29-5

Formula $C_{11}H_9D_3N_2O_3$

M.Wt 223.24

Solubility DMSO : 12.5 mg/mL (55.99 mM; ultrasonic and warming and heat to 60°C)

Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure **Background**

L-5-droxytryptophan-d₃ is the deuterium labeled L-5-droxytryptophan. L-5-droxytryptophan (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[1]. L-5-droxytryptophan (L-5-HTP) is used to treat fibromyalgia, myoclonus, migraine, and cerebellar ataxia[2][3][4][5].

Stable heavy isotopes of drogen, 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].

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

[2]. ARVID CARLSSON, et al. 3,4-Didroxyphenylalanine and 5-droxytryptophan as Reserpine Antagonists. Nature 180, page1200 (1957).

[3]. Caruso I, et al. Double-blind study of 5-droxytryptophan versus placebo in the

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

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- treatment of primary fibromyalgia syndrome. J Int Med Res. 1990 May-Jun;18(3):201-9.
- [4]. Thal LJ, et al. Treatment of myoclonus with L-5-droxytryptophan and carbidopa: clinical, electropsiological, and biochemical observations. Ann Neurol. 1980 Jun;7(6):570-6.
- [5]. Boiardi A, et al. 5-OH-Tryptophane in migraine: clinical and neuropsychological considerations. J Neurol. 1981;225(1):41-6.
- [6]. Trouillas P, et al. Improvement of cerebellar ataxia with levorotatory form of 5-droxytryptophan. A double-blind study with quantified data processing. Arch Neurol. 1988 Nov;45(11):1217-22.

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