
Product Data Sheet

Product Name: L-Kynurenine-d4-1

Cat. No.: GC64898

Chemical Properties

Cas. No. 194546-33-3

Formula C₁₀H₈D₄N₂O₃

M.Wt

212.24

Solubility

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-Kynurenine-d4-1 is deuterium labeled L-Kynurenine. L-Kynurenine is a metabolite of the amino acid L-tryptophan. L-Kynurenine is an aryl hydrocarbon receptor agonist.

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[1].

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

[2]. Moyer BJ, et al. Inhibition of the aryl hydrocarbon receptor prevents Western diet-induced obesity. Model for AHR activation by kynurenine via oxidized-LDL, TLR2/4, TGFβ, and IDO1. *Toxicol Appl Pharmacol.* 2016 Jun 1;300:13-24.

[3]. Sakakibara K, et al. Kynurenine causes vasodilation and hypotension induced by activation of KCNQ-encoded voltage-dependent K(+) channels. *J Pharmacol Sci.* 2015 Sep;129(1):31-7.

[4]. Nozaki K, et al. Neuroprotective effects of L-kynurenine on hypoxia-ischemia and NMDA lesions in neonatal rats. *J Cereb Blood Flow Metab.* 1992 May;12(3):400-7.

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

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