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## Product Data Sheet

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Product Name: Glutaric acid-d6

Cat. No.: GC64471

### Chemical Properties

Cas. No. 154184-99-3

Formula C<sub>5</sub>H<sub>2</sub>D<sub>6</sub>O<sub>4</sub>

M.Wt 138.15

Solubility DMSO : 250 mg/mL (1809.63 mM; Need ultrasonic) 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

Glutaric acid-d6 is the deuterium labeled Glutaric acid. Glutaric acid is an intermediate during the catabolic pathways of lysine and tryptophan. Glutaric acid affects pericyte contractility and migration. Glutaric acid is an indicator of glutaric aciduria type I [1][2] [3].

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]. Yang SY, et, al. Production of glutaric acid from 5-aminovaleric acid by robust whole-cell immobilized with polyvinyl alcohol and polyethylene glycol. *Enzyme Microb Technol.* 2019 Sep;128:72-78.

[3]. Boy N, et, al. Proposed recommendations for diagnosing and managing individuals with glutaric aciduria type I: second revision. *J Inher Metab Dis.* 2017 Jan;40(1):75-101.

[4]. Isasi E, et, al. Glutaric Acid Affects Pericyte Contractility and Migration: Possible Implications for GA-I Pathogenesis. *Mol Neurobiol.* 2019 Nov;56(11):7694-7707.

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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