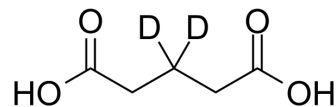


Glutaric acid-d2

Cat. No.:	HY-W008820S2
CAS No.:	43087-19-0
Molecular Formula:	C ₅ H ₆ D ₂ O ₄
Molecular Weight:	134.13
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Glutaric acid-d2 is the deuterium labeled Glutaric acid. Glutaric acid, C5 dicarboxylic 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]} .
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 ^[1] . 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]. 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 Inherit 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.

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