3-Hydroxyglutaric acid-d_5

Cat. No.: HY-113411S

CAS No.: 1219805-72-7

Molecular Formula: $C_5H_3D_5O_5$

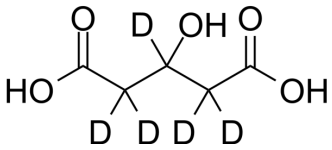
Molecular Weight: 153.14

Target: Endogenous Metabolite

Pathway: Metabolic Enzyme/Protease

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

H_2O : 250 mg/mL (1632.49 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	6.5300 mL	32.6499 mL	65.2997 mL
	5 mM	1.3060 mL	6.5300 mL	13.0599 mL
	10 mM	0.6530 mL	3.2650 mL	6.5300 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

3-Hydroxyglutaric acid-d_5 is the deuterium labeled 3-Hydroxyglutaric acid. 3-Hydroxyglutaric acid is a glutaric acid derivative[1][2].

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]. Rosa RB, et al. Evidence that 3-hydroxyglutaric acid interacts with NMDA receptors in synaptic plasma membranes from cerebral cortex of young rats. Neurochem Int. 2004 Dec;45(7):1087-94.

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

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