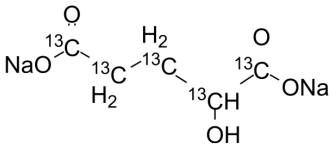
α-Hydroxyglutaric acid-$^{13}C_5$ disodium

Cat. No.:	HY-113038AS
CAS No.:	2482467-23-0
Molecular Formula:	$^{13}C_5H_6Na_2O_5$
Molecular Weight:	197.04
Target:	Histone Demethylase; Endogenous Metabolite
Pathway:	Epigenetics; Metabolic Enzyme/Protease
Storage:	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



BIOLOGICAL ACTIVITY

Description	α-Hydroxyglutaric acid-$^{13}C_5$ (sodium) is the ^{13}C labeled α-Hydroxyglutaric acid sodium[1]. α-Hydroxyglutaric acid (2-Hydroxyglutarate) sodium is an α-hydroxy acid form of glutaric acid. α-Hydroxyglutaric acid sodium is a competitive inhibitor of multiple α-ketoglutarate-dependent dioxygenases, including histone demethylases and the TET family of 5-methlycytosine (5mC) hydroxylases[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 Feb;53(2):211-216.

[2]. Wei Xu, et al. Oncometabolite 2-hydroxyglutarate is a competitive inhibitor of α-ketoglutarate-dependent dioxygenases. Cancer Cell. 2011 Jan 18;19(1):17-30.

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