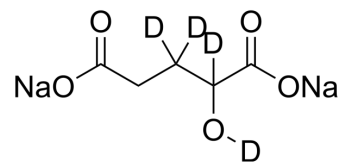


α -Hydroxyglutaric acid-d₄ disodium

| | |
|--------------------|---|
| Cat. No.: | HY-113038AS1 |
| CAS No.: | 2483831-91-8 |
| Molecular Formula: | C ₅ H ₂ D ₄ Na ₂ O ₅ |
| Molecular Weight: | 196.1 |
| Target: | Histone Demethylase; Endogenous Metabolite |
| Pathway: | Epigenetics; Metabolic Enzyme/Protease |
| Storage: | Please store the product under the recommended conditions in the Certificate of Analysis. |



BIOLOGICAL ACTIVITY

| | |
|--------------------|--|
| Description | α -Hydroxyglutaric acid-d ₄ (disodium) is the deuterium labeled α -Hydroxyglutaric acid disodium[1]. α -Hydroxyglutaric acid (2-Hydroxyglutarate) disodium is an α -hydroxy acid form of glutaric acid. α -Hydroxyglutaric acid disodium is a competitive inhibitor of multiple α -ketoglutarate-dependent dioxygenases, including histone demethylases and the TET family of 5-methylcytosine (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.

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

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