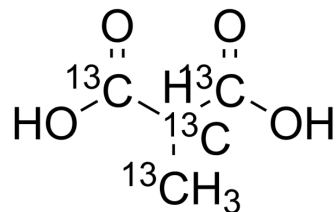


Methylmalonic acid-¹³C₄

Cat. No.:	HY-103395S1
CAS No.:	1173019-21-0
Molecular Formula:	¹³ C ₄ H ₆ O ₄
Molecular Weight:	122.06
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Methylmalonic acid- ¹³ C ₄ is the ¹³ C labeled Methylmalonic acid[1]. Methylmalonic acid (Methylmalonate) is an indicator of Vitamin B-12 deficiency in cancer[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]. Vashi P, et al. Methylmalonic Acid and Homocysteine as Indicators of Vitamin B-12 Deficiency in Cancer. *PLoS One*. 2016 Jan 25;11(1):e0147843.

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

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