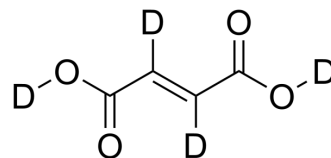


Fumaric acid-d4

Cat. No.:	HY-W015883S4
CAS No.:	194160-45-7
Molecular Formula:	C ₄ D ₄ O ₄
Molecular Weight:	120.1
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Fumaric acid-d ₄ is the deuterium labeled Fumaric acid[1]. Fumaric acid, associated with fumarase deficiency, is identified as an oncometabolite or an endogenous, cancer causing metabolite[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]. Whelan DT, et al. Fumaric aciduria: a new organic aciduria, associated with mental retardation and speech impairment. *Clin Chim Acta*. 1983 Aug 31;132(3):301-8.

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

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