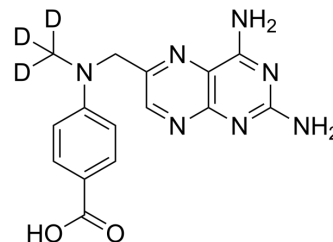


Methotrexate metabolite-d₃

Cat. No.:	HY-108251S
CAS No.:	1794780-00-9
Molecular Formula:	C ₁₅ H ₁₂ D ₃ N ₇ O ₂
Molecular Weight:	328.34
Target:	Antifolate; Drug Metabolite; Isotope-Labeled Compounds
Pathway:	Cell Cycle/DNA Damage; Metabolic Enzyme/Protease; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Methotrexate metabolite-d ₃ is the deuterium labeled Methotrexate metabolite. Methotrexate metabolite (DAMPA), the active metabolite of Methotrexate. Methotrexate is a folic acid antagonist that is widely used as an immunosuppressant and chemotherapeutic agent[1].
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]. Schofield RC, et al. Development and validation of a turbulent flow chromatography and tandem mass spectrometry method for the quantitation of methotrexate and its metabolites 7-hydroxy methotrexate and DAMPA in serum. *J Chromatogr B Analyt Technol Biomed Life Sci*. 2015 Oct 1;1002:169-75.

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

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