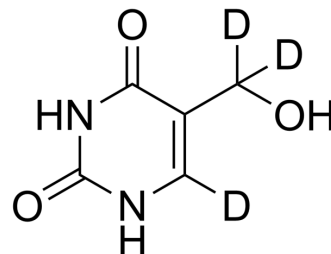


## 5-Hydroxymethyluracil-d3

Cat. No.:	HY-W004924S
CAS No.:	352438-73-4
Molecular Formula:	C <sub>5</sub> H <sub>3</sub> D <sub>3</sub> N <sub>2</sub> O <sub>3</sub>
Molecular Weight:	145.13
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	5-Hydroxymethyluracil-d <sub>3</sub> is the deuterium labeled 5-Hydroxymethyluracil[1]. 5-Hydroxymethyluracil is a product of oxidative DNA damage. 5-Hydroxymethyluracil can be used as a potential epigenetic mark enhancing or inhibiting transcription with bacterial RNA polymerase[2][3].
<b>In Vitro</b>	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 <sup>[1]</sup> . 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]. Djuric Z, et al. Quantitation of 5-(hydroxymethyl)uracil in DNA by gas chromatography with mass spectral detection. *Chem Res Toxicol*. 1991 Nov-Dec;4(6):687-91.
- [3]. Janoušková M, et al. 5-(Hydroxymethyl)uracil and -cytosine as potential epigenetic marks enhancing or inhibiting transcription with bacterial RNA polymerase. *Chem Commun (Camb)*. 2017 Dec 12;53(99):13253-13255.

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

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