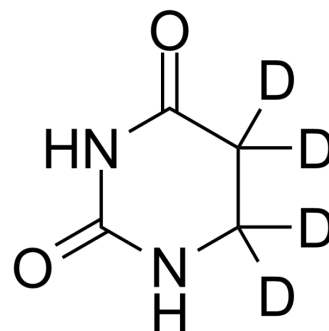


## Dihydrouracil-d4

<b>Cat. No.:</b>	HY-W012926S1
<b>CAS No.:</b>	334473-41-5
<b>Molecular Formula:</b>	C <sub>4</sub> H <sub>2</sub> D <sub>4</sub> N <sub>2</sub> O <sub>2</sub>
<b>Molecular Weight:</b>	118.13
<b>Target:</b>	Endogenous Metabolite; Isotope-Labeled Compounds
<b>Pathway:</b>	Metabolic Enzyme/Protease; Others
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Dihydrouracil-d4 is the deuterium labeled Dihydrouracil <sup>[1]</sup> . Dihydrouracil (HY-W012926), a metabolite of Uracil, can be used as a marker for identification of dihydropyrimidine dehydrogenase (DPD)-deficient <sup>[2][3]</sup> .
<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]. Henricks LM, et al. Food-effect study on uracil and dihydrouracil plasma levels as marker for dihydropyrimidine dehydrogenase activity in human volunteers. *Br J Clin Pharmacol*. 2018 Dec;84(12):2761-2769.
- [3]. Jacobs BAW, et al. The impact of liver resection on the dihydrouracil:uracil plasma ratio in patients with colorectal liver metastases. *Eur J Clin Pharmacol*. 2018 Jun;74(6):737-744.

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

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