Tetrahydrouridine-d_3

Cat. No.: HY-15345AS

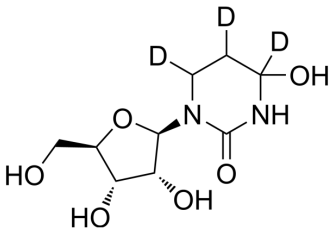
Molecular Formula: $C_9H_{13}D_3N_2O_6$

Molecular Weight: 251.25

Target: Isotope-Labeled Compounds

Pathway: Others

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Tetrahydrouridine-d_3 is the deuterium labeled Tetrahydrouridine[1]. Tetrahydrouridine dihydrate is potent inhibitor of cytidine deaminase (CDA), which competitively blocks the enzyme's active site more effectively than intrinsic cytidine[2][3].
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]. Funamizu N, et al. Tetrahydrouridine inhibits cell proliferation through cell cycle regulation regardless of cytidine deaminase expression levels. PLoS One. 2012;7(5):e37424.

[3]. Terse P, et al. Subchronic oral toxicity study of decitabine in combination with tetrahydrouridine in CD-1 mice. Int J Toxicol. 2014 Mar-Apr33(2):75-85.

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