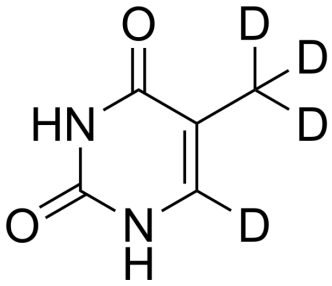
Thymine-d_4-1

Cat. No.:	HY-W010450S4
CAS No.:	156054-85-2
Molecular Formula:	$C_5H_2D_4N_2O_2$
Molecular Weight:	130.14
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



BIOLOGICAL ACTIVITY

Description	Thymine-d_4-1 is the deuterium labeled Thymine[1]. Thymine is one of the four nucleobases in the nucleic acid of DNA and can be a target for actions of 5-fluorouracil (5-FU) in cancer treatment, with a Km of 2.3 μM[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]. Tuchman M, et al. Effects of uridine and thymidine on the degradation of 5-fluorouracil, uracil, and thymine by rat liver dihydropyrimidine dehydrogenase. Cancer Res. 1985 Nov;45(11 Pt 1):5553-6.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA