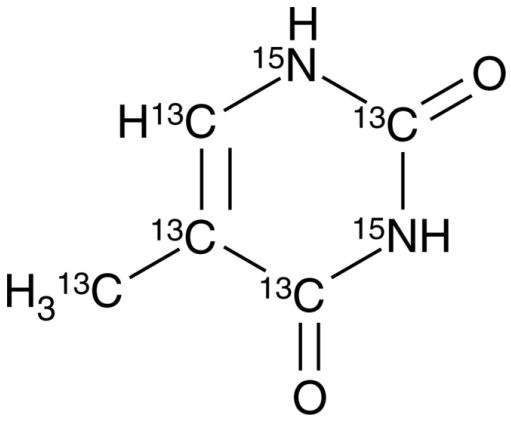
Product Data Sheet

Product Name: Thymine-13C5,15N2
Cat. No.: GC91589

Chemical Properties

Cas. No.	2483830-13-1		
Formula	$[^{13}C]5H_6[^{15}N]2O_2$	M.Wt	133.1
Solubility	Acetonitrile: Slightly Soluble: 0.1-1 mg/ml,DMSO: Sparingly Soluble: 1-10 mg/ml	Storage	-20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		

Structure



Background

Thymine-$^{13}C_5$,$^{15}N_2$ is intended for use as an internal standard for the quantification of thymine by GC- or LC-MS. Thymine is a pyrimidine base.[1] It forms complementary base pairs with the purine adenine in DNA.[1] Thymine is produced by the catabolism of thymidine *via* thymidine phosphorylase.[2] It is replaced with uracil in RNA.[3]

References:

Caution: Product has not been fully validated for medical applications. For research use only.
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[1].Ghannam, J.Y., Wang, J., and Jan, A.Biochemistry, DNA Structure1-5(2021).
[2].Brown, N.S., and Bicknell, R.Thymidine phosphorylase, 2-deoxy-D-ribose and angiogenesisBiochem. J.334(Pt 1)1-8(1998).
[3].Banoub, J.H., Newton, R.P., Esmans, E., et al.Recent developments in mass spectrometry for the characterization of nucleosides, nucleotides, oligonucleotides, and nucleic acidsChem. Rev.105(5)1869-1915(2005).

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