

Product Data Sheet

Product Name: Thymine- $^{13}\text{C}_5$, $^{15}\text{N}_2$

Cat. No.: GC91589

Chemical Properties

Cas. No. 2483830-13-1

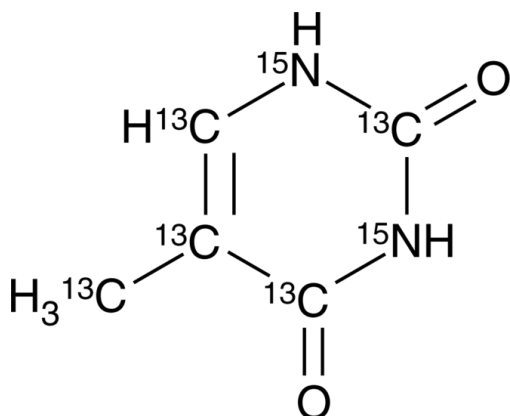
Formula $[^{13}\text{C}]_5\text{H}_6[^{15}\text{N}]_2\text{O}_2$ M.Wt 133.1

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- $^{13}\text{C}_5$, $^{15}\text{N}_2$ 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.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

- [1]. Ghannam, J.Y., Wang, J., and Jan, A. Biochemistry, DNA Structure 1-5 (2021).
- [2]. Brown, N.S., and Bicknell, R. Thymidine phosphorylase, 2-deoxy-D-ribose and angiogenesis Biochem. 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 acids Chem. Rev. 105 (5) 1869-1915 (2005).

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA