

Product Name: 4-Thiouridine

Catalog No.: 7005

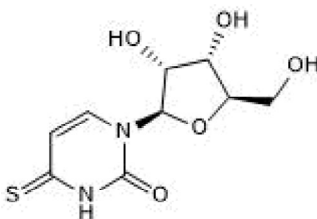
Batch No.: 3

CAS Number: 13957-31-8

IUPAC Name: 4-Thiouridine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₉H₁₂N₂O₅S.
Batch Molecular Weight: 260.26
Physical Appearance: White solid
Solubility: water to 20 mM
DMSO to 20 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.1% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	41.53	4.65	10.76
Found	41.75	4.56	10.71

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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IUPAC Name: 4-Thiouridine

Description:

4-Thiouridine is a photoreactive uridine analog for RNA sequencing (RNA seq) and thiol(SH)-linked alkylation for the metabolic sequencing of RNA (SLAM seq). Used as a crosslinker to identify RNA binding proteins. Is incorporated into newly transcribed RNA and can be used to track RNA from synthesis to degradation.

Physical and Chemical Properties:

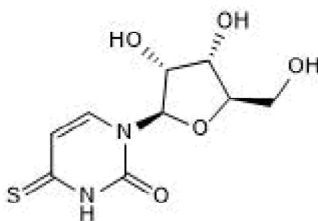
Batch Molecular Formula: C₉H₁₂N₂O₅S.

Batch Molecular Weight: 260.26

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

water to 20 mM

DMSO to 20 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Schofield et al (2018) TimeLapse-seq: adding a temporal dimension to RNA sequencing through nucleoside recoding. *Nat.Methods* **15** 221. PMID: 29355846.

Garibaldi et al (2017) Isolation of newly transcribed RNA using the metabolic label 4-thiouridine. *Methods Mol.Biol.* **1648** 169. PMID: 28766297.

Herzog et al (2017) Thiol-linked alkylation of RNA to assess expression dynamics. *Nat.Methods* **14** 1198. PMID: 28945705.

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