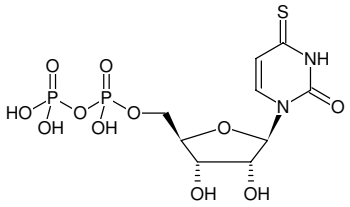
DATA SHEET

Jena Bioscience

4-Thio-UDP

4-Thio-uridine-5'-diphosphate, Sodium salt

Cat. No.	Amount
NU-1155S	20 µl (10 mM)
NU-1155L	5 x 20 µl (10 mM)



Structural formula of 4-Thio-UDP

For general laboratory use.

Shipping: shipped on gel packs

Storage Conditions: store at -20 °C

Short term exposure (up to 1 week cumulative) to ambient temperature possible.

Shelf Life: 12 months after date of delivery

Molecular Formula: $C_9H_{14}N_2O_{11}P_2S$ (free acid)

Molecular Weight: 420.22 g/mol (free acid)

Exact Mass: 419.98 g/mol (free acid)

Purity: ≥ 95 % (HPLC)

Form: solution in water

Color: slightly yellow

Concentration: 10 mM - 11 mM

pH: 7.5 ±0.5

Spectroscopic Properties: λ_{max} 331 nm, ε 16.3 L mmol^{-1} cm^{-1} (Tris-HCl pH 7.5)

Selected References:

Zaher *et al.* (2006) A general RNA-capping ribozyme retains stereochemistry during cap exchange. *J. Am. Chem. Soc.* **128 (42)**:13894.

Kwon *et al.* (2001) DNA sequencing and genotyping by transcriptional synthesis of chain-terminated RNA ladders and MALDI-TOF mass spectrometry. *Nucleic Acids Res.* **29 (3)**:e11.

Testa *et al.* (1999) Thermodynamics of RNA-RNA Duplexes with 2- or 4-Thiouridines: Implications for Antisense Design and Targeting a Group I Intron. *Biochemistry* **38**:16655.

Dontsova *et al.* (1994) Stem-loop IV of 5S rRNA lies close to the peptidyltransferase center. *Proc. Natl. Acad. Sci. USA* **91 (10)**:4125.

Sheng *et al.* (1993) Active site labeling of HIV-1 reverse transcriptase. *Biochemistry* **32 (18)**:4938.

Khanna *et al.* (1991) Photoaffinity labelling of the pea chloroplast transcriptional complex by nascent RNA in vitro. *Nucleic Acids Res.* **19 (18)**:4849.

Dissinger *et al.* (1990) Active site labeling of Escherichia coli transcription elongation complexes with 5-((4-azidophenacyl)thio)uridine 5'-triphosphate. *J. Biol. Chem.* **265 (13)**:7662.

Tanner *et al.* (1988) Binding interactions between yeast tRNA ligase and a precursor transfer ribonucleic acid containing two photoreactive uridine analogues. *Biochemistry* **27 (24)**:8852.

Bartholomew *et al.* (1986) RNA contacts subunits IIo and IIc in HeLa RNA polymerase II transcription complexes. *J. Biol. Chem.* **261 (30)**:14226.

Eshaghpour *et al.* (1979) Specific chemical labeling of DNA fragments. *Nucleic Acids Res.* **7 (6)**:1485.