

4-Thio-Uridine Kit

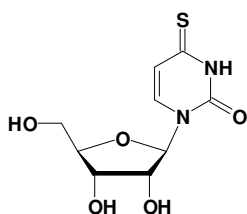
Cat.No.: NK-106

Kit Contents

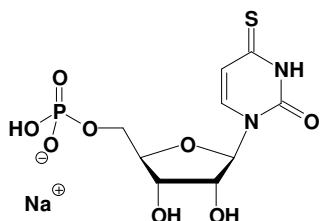
4-Thio-Uridine Analogs	Cat. No.	Amount
4-Thio-U	N-1043	1 mg
4-Thio-UMP	NU-1154	50 Units
4-Thio-UDP	NU-1155	50 Units
4-Thio-UTP	NU-1156	50 Units

1 Unit = 1 μ l of a 10 mM solution

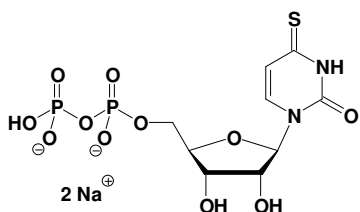
Structures



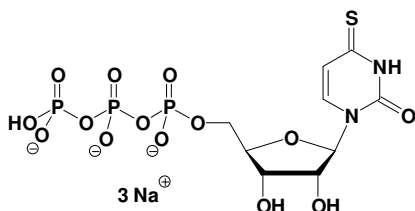
4-Thio-U



4-Thio-UMP



4-Thio-UDP



4-Thio-UTP

Introduction

4-Thio-Uridines without substituents on the Sulphur atom are used for photochemical UV-crosslinking studies of RNA. Furthermore, they show altered hybridization properties compared to unmodified Uridine: 4-Thio-Uridine hybridizes to Guanosine instead of Adenosine.

Kit Description

The 4-Uridine Kit contains a set of 4 typical 4-Thio-Uridine analogs (Nucleoside, 5'-Mono, Di and Triphosphate).

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.

Storage and Stability

Short term exposure (up to 1 week cumulative) to ambient temperature is possible. Long term storage is recommended at $< -20^{\circ}\text{C}$. If properly stored, Jena Bioscience guarantees optimal performance of the compounds for 12 months after date of delivery.