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Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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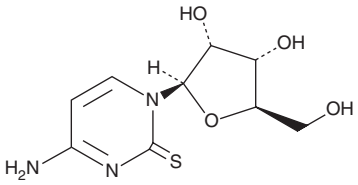
PRODUCT INFORMATION

2-Thiocytidine

Item No. 34732

CAS Registry No.:	13239-97-9
Formal Name:	2-thio-cytidine
Synonym:	α-2-Thioribocytidine
MF:	$C_9H_{13}N_3O_4S$
FW:	259.3
Purity:	≥95%
UV/Vis.:	λ_{max}: 249, 277 nm
Supplied as:	A solid
Storage:	-20°C
Stability:	≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

2-Thiocytidine is supplied as a solid. A stock solution may be made by dissolving the 2-thiocytidine in the solvent of choice, which should be purged with an inert gas. 2-Thiocytidine is soluble in the organic solvent DMSO at a concentration of approximately 1 mg/ml. 2-Thiocytidine is slightly soluble in PBS (pH 7.2).

2-Thiocytidine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 2-thiocytidine should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. 2-Thiocytidine has a solubility of approximately 0.14 mg/ml in a 1:6 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

2-Thiocytidine is a modified nucleobase found in bacterial and archaeal tRNA.[1,2] 2-Thiocytidine is also an intermediate in the synthesis of pyrimidine β-ribonucleosides and β-ribonucleotides.[3]

References

1. Shigi, N. Biosynthesis and functions of sulfur modifications in tRNA. *Front. Genet.* **5**, 67 (2014).
2. Čavužić, M. and Liu, Y. Biosynthesis of sulfur-containing tRNA modifications: A comparison of bacterial, archaeal, and eukaryotic pathways. *Biomolecules* **7(1)**, 27 (2017).
3. Xu, J., Tsanakopoulou, M., Magnani, C.J., *et al.* A prebiotically plausible synthesis of pyrimidine β-ribonucleosides and their phosphate derivatives involving photoanomerization. *Nat. Chem.* **9(4)**, 303-309 (2017).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent *via* email to your institution.

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