

PRODUCT INFORMATION

CTP

Cytidine 5'-triphosphate,
sodium salt

#R0451 —

Lot: _ Expiry Date: _

Concentration: 100 mM

Volume: 0.25 mL

Amount: 25 µmol

Formula: C₉H₁₃N₃O₁₄P₃Na₃

Molecular Weight: 549.1 (acid form: 483.1)

Store at -20°C

Description

100 mM aqueous solution of CTP
(cytidine 5'-triphosphate), titrated to 7.3-7.5 with NaOH.

General characteristics

λ_{\max} =271 nm,

ϵ =9.0×10³ M⁻¹ cm⁻¹ (pH 7.0)

CERTIFICATE OF ANALYSIS

Purity is $\geq 99\%$, determined by HPLC.

Concentration is 100 ± 3 mM for each of NTP is determined spectrophotometrically in potassium phosphate buffer (pH 7.0) using a molar absorption coefficient of $9.0 \text{ mM}^{-1}\text{cm}^{-1}$ at 271 nm.

pH is 7.3-7.5, determined according to Ph. Eur. 2.2.3

Endo- and exonucleases. Incubation of single stranded and double stranded radiolabeled oligonucleotides with 1 μL of 100 mM CTP for 4 hours at 37 °C, separation on denaturing polyacrylamide gel and phosphoimaging did not detect DNA degradation.

Ribonucleases. Incubation of 2,000 bases RNA transcript with 1 μL of 100 mM CTP at 37 °C for 4 hours and separation on agarose gel resulted in no decrease in RNA transcript band intensity compared to control.

***In vitro* transcription assay.** Incubation of 1 μg of pTZ102R DNA/Ecl136II DNA template with 10 mM of each of NTP and 2 μL of Thermo Scientific™ TranscriptAid™ enzyme mix in 1X TranscriptAid reaction buffer for 2 hours at 37 °C generated $\geq 25 \mu\text{g}$ of single stranded RNA product of 100 bases.

PRODUCT USE LIMITATION

This product is developed, designed and sold exclusively *for research purposes and in vitro use only*. The product was not tested for use in diagnostics or for drug development, nor is it suitable for administration to humans or animals. Please refer to www.thermoscientific.com/onebio for Material Safety Data Sheet of the product.

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Quality authorized by:



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