Thermo
SCIENTIFIC

PRODUCT INFORMATION

CTP

Cytidine 5'-triphosphate,
sodium salt

#R0451

Lot: _   Expiry Date: _

Concentration:	100 mM
Volume:	0.25 mL
Amount:	25 µmol
Formula:	$C_9H_{13}N_3O_{14}P_3Na_3$
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,
$\varepsilon=9.0\times10^3$ M^{-1} cm^{-1} (pH 7.0)

CERTIFICATE OF ANALYSIS

Purity is ≥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 mM^{-1}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 ≥25 μg of single stranded RNA product of 100 bases.

Quality authorized by: Jurgita Zilinskiene