

# 100mM dCTP

Shipping: On Dry/Blue Ice

Catalog numbers

Batch No.: See bottle

BIO-39038

1 x 250 µL



A Meridian Life Science® Company

Store at -20°C

## Storage and stability:

dCTP is shipped on dry/blue ice. On arrival store at -20°C for optimum stability. Repeated freeze/thaw cycles should be avoided. For long-term storage, aliquoting is recommended.

## Expiry:

When stored under the recommended conditions and handled correctly, quality is retained until the expiry date on the outer box label.

## Safety precautions:

Please refer to the material safety data sheet for information.

## Quality control specifications:

dCTP is extensively tested for contamination prior to release. dNTPs are >99% pure by HPLC and are free of DNase, RNase, Protease, phosphatase and nicking activity. Lithium salts, >99% deoxynucleoside triphosphates (HPLC, area %), <1% deoxynucleoside mono-phosphates and deoxynucleoside diphosphates.

## Description

Bioline Ultra-pure dNTPs are enzymatically synthesized from premium quality raw materials, using highly specific production systems in our purpose built facilities. The manufacturing process eliminates impurities and PCR-specific inhibitors such as modified nucleotides, tetraphosphates and pyrophosphates commonly observed in other commercially available dNTP products. Bioline dNTPs are purified with quantitative HPLC and possess at least 99% purity.

All Bioline dNTPs are supplied as lithium salts in purified water at pH 7.5. Lithium salts have greater resistance to repeated freezing and thawing cycles than sodium salts, and lithium salt dNTP preparations remain sterile over the entire shelf-life due to the bacteriostatic activity of lithium towards various microorganisms.

This reagent has been manufactured under 13485 Quality Management System and is suitable for further manufacturing use as an IVD component.

## Features

- Ultra-pure: >99% trisphosphate by HPLC
- Extended shelf-life of 24 months at -20°C
- Free from PCR inhibitors
- DNase, RNase and Nickase free
- Manufactured by Bioline in a purpose-built facility
- Custom, bulk and OEM nucleotide service

## Applications

- Standard and long range PCR assays
- cDNA synthesis
- qPCR
- Microarrays
- DNA sequencing
- Labeling

## dNTP Characteristics

2'-deoxycytidine-5'-triphosphate solution

SPECTRAL & HPLC ANALYSIS	PERFORMANCE
$\lambda_{max}$ pH 7.0	272nm
$\epsilon$ at $\lambda_{max}$	$9.1 \text{ E} \times \text{mmol}^{-1} \times \text{cm}^{-1}$
$A_{250}/A_{260}$	$0.82 \pm 0.03$
$A_{280}/A_{260}$	$0.98 \pm 0.03$
Concentration	$100\text{mM} \pm 2\%$
Appearance	Clear Colourless Solution
pH of Solution	7.5
dNTP (HPLC Area)	$\geq 99\%$
dNDP (HPLC Area)	$< 1\%$
DNases, RNases, Nicking Activity	Negative

## Associated products

Product Name	Pack Size	Catalog No.
dNTP Mix 100mM total	1 x 500 µL	BIO-39028
dNTP Set	4 x 250 µL	BIO-39025
HyperLadder 1kb	200 Lanes	BIO-33025
Agarose	500 g	BIO-41025

## Product citations

1. Meijer, P.-J., *et al. Meth. Mol. Biol.* **525(3)**, 1-17 (2009).
2. Dellinger, M., *et al. Develop. Biol.* **319(2)**, 309-320 (2008).
3. Hampson, L., *et al. FEBS Lett.* **581(21)**, 3955-3960 (2007).
4. Lloyd, R.E., *et al. Gene.* **172**, 2515-2527 (2006).

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