

dNTP Mix

Shipping: On Dry/Blue Ice	Catalog numbers
Batch No.: See bottle	BIO-39044: 10 μ mol 10mM total 1 x 1 mL
	BIO-39043: 20 μ mol 40mM total 1 x 500 μ L
	BIO-39028: 50 μ mol 100mM total 1 x 500 μ L
	BIO-39029: 200 μ mol 100mM total 4 x 500 μ L
	BIO-39053: 100 μ mol 10mM total 10 x 1 mL

Store at -20°C

meridian BIOSCIENCE™

Storage and stability:

dNTP Mix 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. Thaw, mix, and briefly centrifuge each component before use.

Safety precautions:

Please refer to the material safety data sheet for information.

Quality control specifications:

dNTP Mix 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 monophosphates and deoxynucleoside diphosphates.

Notes:

For research or further manufacturing use only.

Trademarks:

MyTaq and HyperLadder are trademarks of Bioline Reagents Ltd.

Description

A ready-to-use molecular grade dNTP Mix containing dATP, dCTP, dGTP and dTTP at pH 7.5 as lithium salts in purified water. The mix is designed to save hands-on time for researchers and minimize the possibility of contamination. For use in DNA polymerization reactions, DNA labeling and sequencing processes. Dependable PCR grade.

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.

Features

- Convenient, pre-optimized and pre-mixed
- 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

Applications

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

dNTP Characteristics

dNTPs	Mol. Wt	Molar Extinction(1 μ mol)
dATP	514.9	15.4 (A_{259})
dGTP	530.9	13.7 (A_{252})
dCTP	490.9	9.1 (A_{272})
dTTP	505.9	9.6 (A_{267})

Associated products

Product Name	Pack Size	Catalog No.
HyperLadder™ 1kb	200 Lanes	BIO-33025
MyTaq™ DNA Polymerase	200 Units	BIO-21105
VELOCITY DNA polymerase	250 Units	BIO-21098

dNTP Mix Reaction Guidelines

100 mM Mix contains 25 mM of each dNTP

Reaction Volume	Master Mix	Reactions
50 μ L	0.5 μ L	1000

40 mM Mix contains 10 mM of each dNTP

Reaction Volume	Master Mix	Reactions
50 μ L	1.25 μ L	400

10 mM Mix contains 2.5 mM of each dNTP

Reaction Volume	Master Mix	Reactions
50 μ L	5.0 μ L	200

This is a guide only, for long-range applications adjust accordingly.

Product citations

1. Karbanowicz, T., *et al.* *Toxicon* **140** 1-10 (2017).
2. Dnyaneshwar, R. *et al.* *Med. Microbio. & Immunol.* **205 (5)**,435-447 (2016).
3. Hirst, C. S., *et al.* *PloS one*, **10 (3)**, e0123436 (2015).
4. Ferraz-de-Souza, B., *et al.* *FASEB J.* **25**, 1166-1175 (2011).
5. Hogan, C.J., *et al.* *Mol. Cell. Biol.* **30**, 657-674 (2010).
6. Hampson, L., *et al.* *FEBS Lett.* **581(21)**, 3955-3960 (2007).
7. Tayeb, M.T., *et al.* *Br. J. Can.* **88**, 928-932 (2003).
8. Charlton, K.A., *et al.* *J. Immunol.* **164**, 6221-6229 (2000).

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