dNTP Mix

Shipping: On Dry/Blue Ice

Exp. Date: See bottle

Batch No.: See bottle

Catalog numbers

BIO-39044: 10µmol	10mM total	1 x 1ml
BIO-39043: 20µmol	40mM total	1 x 500µl
BIO-39028: 50µmol	100mM total	1 x 500µl
BIO-39029: 200µmol	100mM total	4 x 500µl
BIO-39053: 100µmol	10mM total	10 x 1ml

Store at –20°C

DATA SHEET

Storage and stability:
dNTP Mix are shipped on dry ice or blue ice and can be stored for 24 months at -20°C. Avoid multiple freeze/thaw cycles. For long-term storage, aliquoting is recommended.

Safety precautions:
Harmful if swallowed. Irritating to eyes, respiratory system and skin. Please refer to the material safety data sheet for further information.

Typical Analysis:
Lithium salts, >99% deoxynucleoside triphosphates (HPLC, area %), <1% deoxynucleoside monophosphates and deoxynucleoside diphosphates.

Purity:
Bioline dNTPs are >99% pure by HPLC and are free of DNase, RNase, Protease, phosphatase and nicking activity.

Notes:
Research Use Only

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(1µmol)
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™ I	200 Lanes	BIO-33025
MyTaq™ DNA polymerase	200 Units	BIO-21105
VELOCITY DNA polymerase	250 Units	BIO-21098

dNTP Mix Reaction Guidelines

100mM Mix contains 25 mM of each dNTP

Reaction Volume	Master Mix	Reactions
50µl	0.5µl	1000

40mM Mix contains 10 mM of each dNTP

Reaction Volume	Master Mix	Reactions
50µl	1.25µl	400

10mM Mix contains 2.5 mM of each dNTP

Reaction Volume	Master Mix	Reactions
50µl	5.0µl	200

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

Product citations

1. Ferraz-de-Souza, B., *et al. FASEB J.* **25**, 1166-1175 (2011).
2. Hogan, C.J., *et al. Mol. Cell. Biol.* **30**, 657-674 (2010).
3. Meijer, P-J., *et al. Meth. Mol. Biol.* **525(3)**, 1-17 (2009).
4. Varley, K.E. & Mitra, R.D. *Cold Spring Harb. Prot.* doi:10.1101/pdb.prot5252 (2009).
5. Zampolla, T., *et al. Cryobiol.* **59 (2)**, 188-194 (2009).
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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