dNTPs Mix (10)

P. Code	Reactions (20µl)	Volume	Variation	Description	Lot Number	Expiry
DNTP-10-1	100	1 mL	10 mM dNTP's	Aqueous solution of equal concentration of 10 mM each of 4 dNTPs.		
DNTP-25-1	100	1 mL	25 mM dNTP's	Aqueous solution of equal concentration of 25 mM each of 4 dNTPs.		

Applications

- PCR (Polymerase Chain Reaction)
- qPCR (Quantitative Polymerase Chain Reaction)
- HRM (High Resolution Melting)
- DNA sequencing
- cDNA synthesis
- Nick translation
- Random primer labeling
- *In vitro* transcription
- Site-directed mutagenesis

Product Description

A mix of four deoxyribonucleotide triphosphates (dNTPs) available at a concentration of 10 or 25 millimolar (mM) each. They include deoxyadenosine triphosphate (dATP), deoxyguanosine triphosphate (dGTP), deoxycytidine triphosphate (dCTP), and deoxythymidine triphosphate (dTTP). These nucleotides are essential building blocks for DNA synthesis in molecular biology applications such as PCR (polymerase chain reaction), DNA sequencing, cDNA synthesis, and other enzymatic reactions requiring DNA polymerases.

Key Features

- High purity - ≥99% purity of each nucleotide determined by HPLC.
- Free from DNA contamination and inhibitors.
- Stable—withstand multiple freeze thaw cycles.

Associated Products

Just Water - Molecular biology Grade water in convenient 1 mL aliquots.

Microzone's MegaMix PCR mastermix range all contain Microzone's ultrapure dNTP's as part of an optimized formulation providing ease of use and reproducibility by just adding primers and template.

Protocol

This protocol provides a recommended protocol of endpoint PCR.

Ensure all reagents are thawed before use and mixed well.

Prepare a master mix as described in the table below. This reaction can be scaled according to the quantity of reactions required.

Mix gently, avoiding bubbles, centrifuge if necessary.

Include a no template control and positive control as required.

Components	Volume
5x PCR Buffer	10µL
dNTPs 10 mM or 25 mM	1.25 µL (10 mM) 0.5 (25 mM)
Taq Polymerase	x µL
Primers	y µL
Template	z µl
Just Water (Molecular grade water)	up to 50 µL

Thermocycling

Transfer the reactions to the thermal cycler and set as follows:

Cycles	Temperature	Time
1	95°C	5 min
25-40	95°C	15 sec
	55-65°C	15 sec
	72°C	30 sec

Annealing temperature (55-65°C) may require optimisation depending on the specific primers in use.

The run time can be shortened by optimising the steps of the thermocycling profile. The extension time is to be increased depending on amplicon length, different enzymes had different extension speeds.

For research use only

Product Handling

Storage

To ensure the quality of the product until the expiry date keep at the recommended storage temperature and limit exposure to light.

Contamination Control

To prevent erroneous results ensure work environment is free of contamination by cleaning your workstation and equipment with a DNA decontaminant daily, wear gloves, use sterile tubes and filter pipet tips.

Simple | Effective | Efficient

Version 2.01

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