Thermo SCIENTIFIC

PRODUCT INFORMATION

dNTP Mix, 25 mM each,

molecular biology grade

#R1122 5 x 1 mL

Lot: _ **Expiry Date: _**

Store at -20°C

In total 5 vial(s).

www.thermoscientific.com/onebio

Description

dNTP Mix contains aqueous solution of dATP, dCTP, dGTP and dTTP, each at a final concentration of 25 mM.
The Mix offers the possibility to reduce the number of pipetting steps and the risk of reaction set up errors.

Applications

For use in PCR, real-time PCR, high fidelity and long PCR, LAMP-PCR, cDNA synthesis, RT-PCR, RDA, MDA, DNA labeling, and DNA sequencing.

Important Note

- Mix well dNTP Mix prior to use.
- To get 0.2 mM dNTP in PCR add:
  0.2 µL of 25 mM dNTP Mix for 25 µL of PCR volume;
  0.4 µL of 25 mM dNTP Mix for 50 µL of PCR volume;
  0.8 µL of 25 mM dNTP Mix for 100 µL of PCR volume.

CERTIFICATE OF ANALYSIS

Purity is ≥99% for each dNTP, used for dNTP Mix preparation (determined by HPLC).

pH is 7.3-7.5 for each dNTP, used for dNTP Mix preparation (determined according to Ph. Eur. 2.2.3).

Endo- and exonucleases. Each dNTP, used for dNTP Mix preparation, was tested by incubation of single stranded and double stranded radiolabeled oligonucleotides with 1 µL of 20 mM dNTP for 4 hours at 37°C and separation of reaction mixtures on a denaturing polyacrylamide gel. Phosphoimaging has not detected DNA degradation.

Ribonucleases. Each dNTP, used for dNTP Mix preparation, was tested by incubation of 2,000 bases RNA transcript with 1 µL of 20 mM dNTP at 37°C for 4 hours and separation of reaction products on an agarose gel. There was no decrease in RNA transcript band intensity compared to control.

Nicking activities. Each dNTP, used for dNTP Mix preparation, was tested by incubation of 1 µg of supercoiled pUC19 DNA with 1 µL of 20 mM dNTP at 37°C for 17 hours and separation of reaction mixtures on an agarose gel. Neither linearised plasmid, nor relaxation of supercoiled plasmid was detected as compared to control.

***E.coli* DNA**. Quantitative PCR test on ABI Prism 7000 SDS, which uses amplification of *E.coli* 23S rRNA gene fragment did not detect *E.coli* DNA.

Human DNA. Quantitative PCR test on ABI Prism 7000 SDS, which uses amplification of human genomic DNA fragment did not detect human DNA.

Functional test. 1. PCR amplification of a single-copy gene fragment (1 kb) from 10 copies of human genomic DNA using *Pfu* DNA polymerase.

2. PCR amplification of 5 kb DNA fragment from series of lambda DNA dilutions using *Pfu* DNA polymerase.

Quality authorized by: Jurgita Zilinskiene

PRODUCT USE LIMITATION

This product is developed, designed and sold exclusively *for research purposes and in vitro use only.* The product was not tested for use in diagnostics or for drug development, nor is it suitable for administration to humans or animals.
Please refer to www.thermoscientific.com/onebio for Material Safety Data Sheet of the product.

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