

## PRODUCT INFORMATION

**dNTP Mix,  
2 mM each,**  
molecular biology grade

**#R0242**                      5 x 1 mL

**Lot: \_\_**                      **Expiry Date: \_\_**

**Store at -20°C**

In total 5 vial(s).

## Description

dNTP Mix contains aqueous solution of dATP, dCTP, dGTP and dTTP, each at a final concentration of 2 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.

## CERTIFICATE OF ANALYSIS

**Purity** is  $\geq 99\%$  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  $\mu\text{L}$  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  $\mu\text{L}$  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  $\mu\text{g}$  of supercoiled pUC19 DNA with 1  $\mu\text{L}$  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](http://www.thermoscientific.com/onebio) for Material Safety Data Sheet of the product.

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