

## Deoxynucleotide (dNTP) Solution Mix



1-800-632-7799  
info@neb.com  
www.neb.com



N0447S 079150617061

# N0447S

8 µmol each dNTP

Lot: 0791506

Store at -20°C

Exp: 6/17

**Description:** Deoxynucleotide (dNTP) Solution Mix is an equimolar solution of ultrapure dATP, dCTP, dGTP and dTTP.

Supplied in: Ultrapure water as a sodium salt at pH 7.5.

**Concentration:** Each deoxynucleotide is supplied at a concentration of 10 mM in a equimolar solution containing a total deoxynucleotide concentration of 40 mM.

### Reagents Supplied:

10 mM Deoxynucleotide Solution Mix 4 x 0.2 ml

**Example of Use:** For a reaction which calls for 200 µM of each dNTP, add 2 µl of this premixed deoxynucleotide solution per 100 µl reaction.

**Diluent Compatibility:** Can be diluted using sterile distilled water, preferably Milli-Q® water or can be diluted using sterile TE [10 mM Tris-HCl, 1 mM EDTA (pH 7.5)].

### Quality Controls

The purity of each deoxynucleotide is ≥ 99% as determined by HPLC analysis.

**0.5 kb, 2 kb and 5 kb Lambda PCR Assay –** 25 cycles of PCR amplification of 1 ng Lambda DNA with 5 units of *Taq* DNA Polymerase in the presence of 200 µM Deoxynucleotide Solution Mix, 0.5 µM primers and 1X ThermoPol® Buffer results in the amplification of the specific 0.5 kb, 2 kb and 5 kb products as determined by agarose gel electrophoresis.

### Phosphatase Activity Assay (pNPP Colorimetric Assay) –

A protein phosphatase buffer solution containing 2 mM Deoxynucleotide Solution Mix and 100 µM *p*-nitrophenol phosphate, incubated for 4 hours at 37°C, yields no detectable phosphatase activity as determined by spectrophotometric analysis of released *p*-nitrophenylene anion at 405 nm.

**Non-specific Nuclease Assay –** A 50 µl reaction in 1X NEBuffer 2 containing 1 µg of T3 DNA or HindIII digested Lambda DNA and a minimum of 10 µl of Deoxynucleotide Solution Mix incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.

For use with any DNA Polymerase from NEB.

### Companion Products Sold Separately:

Deoxynucleotide (dNTP) Solution Set #N0446S 25 µmol of each

dATP Solution #N0440S 25 µmol



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CERTIFICATE OF ANALYSIS

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