

Deoxynucleotide (dNTP) Solution Set



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



N0446S 049120914092

N0446S

25 µmol each dNTP Lot: **0491209**
Store at -20°C Exp: **9/14**

Description: The Deoxynucleotide (dNTP) Solution Set contains 0.25 ml of each 100 mM ultrapure deoxynucleotide as four separate solutions (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 100 mM (± 5 mM) as determined by A_{260} absorbance.

Reagents Supplied:	
100 mM dATP Solution	0.25 ml
100 mM dCTP Solution	0.25 ml
100 mM dGTP Solution	0.25 ml
100 mM dTTP Solution	0.25 ml

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 $\geq 99\%$ 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 dATP, dCTP, dGTP and dTTP 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 dATP, dCTP, dGTP or dTTP solution 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 dATP, dCTP, dGTP or dTTP Solution 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 Mix
#N0447S 8 µmol of each
#N0447L 40 µmol of each

dATP Solution
#N0440S 25 µmol

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MILLI-Q® is a registered trademark of Millipore Corporation.



CERTIFICATE OF ANALYSIS

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#N0447L 40 µmol of each

dATP Solution
#N0440S 25 µmol

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