

Deoxynucleotide Solution Set



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



NO446S 048120614062

NO446S

25 µmol each dNTP

Lot: 0481206

Store at -20°C

Exp: 6/14

Description: The Deoxynucleotide Solution Set contains 0.25 ml of each 100 mM ultrapure nucleotide 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, dGTP, dCTP 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, dTTP, dCTP or dGTP 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, dTTP, dGTP, or dCTP Solution incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.

Notes: Storing nucleotide triphosphates in solutions containing magnesium promotes triphosphate degradation.

For use with any DNA Polymerases from NEB.

Companion Products Sold Separately:

Deoxynucleotide Solution Mix
#N0447S 8 µmol of each
#N0447L 40 µmol of each

dATP Solution
#N0440S 25 µmol

THERMOPOL™ is a trademark of New England Biolabs, Inc.
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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CERTIFICATE OF ANALYSIS