dATP Solution

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

N0440S 048120614061

N0440S

25 µmol **Lot: 0481206**

100 mM **Store at –20°C** **Exp: 6/14**

Description: Contains 0.25 ml of 100 mM ultrapure dATP.

Supplied in: Ultrapure water as a sodium salt at pH 7.4.

Concentration: The dATP Solution is supplied at a concentration of 100 mM (±5 mM) as determined by A_{260} absorbance.

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 dATP 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 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 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 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

Deoxynucleotide Solution Set

#N0446S	25 µmol of each

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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