

## dATP Solution



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



N0440S 053150217021

# N0440S

25 µmol Lot: 0531502

100 mM Store at -20°C Exp: 2/17

**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.

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**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.

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



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CERTIFICATE OF ANALYSIS

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