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ProductInformation

2′-DEOXYADENOSINE 5′-TRIPHOSPHATE (dATP), 10 mM SOLUTION, PCR Reagent

Product No. **D6920**

Store at less than -20°C

Product Description
Purity: Minimum 99% by HPLC
DNase, RNase: None detected
Suitable for use in the Polymerase Chain Reaction (PCR).

PCR Suitability
dATP was tested at a final concentration of 200 µM in a reaction mixture containing: 10 mM Trizma®-HCl, pH 8.3 at 25°C, 50 mM KCl, 1.5 mM $MgCl_2$, 0.001% (w/v) gelatin, each dNTP except dATP at 200 µM, primers defining an approximately 500 base pair region of lambda DNA at 1.0 µM each, λ DNA template at 1 ng/100 µl, and AmpliTaq™ DNA Polymerase at 2.5 units/100 µl. The reaction underwent 25 cycles of 94°C to denature the double stranded DNA, 55°C to anneal the DNA segments, and 72°C to extend the DNA segments. A single band of approximately 500 base pairs was visualized following electrophoresis of the reaction product in a 1.5% agarose gel.

Endonuclease-exonuclease
One µg of λ Hind III fragments was incubated for 16 hours at 37°C with dATP at a final concentration of 0.2 mM in a 50 µl reaction mixture containing 30 mM Trizma®-HCl, pH 7.8, 50 mM NaCl and 10 mM $MgCl_2$. No degradation of the DNA fragments was detected following agarose gel electrophoresis. Detection limit: Degradation of 10% of the DNA substrate is detectable.

Endonuclease (Nickase)
One µg of pBR322 DNA was incubated for 16 hours at 37°C with dATP at a final concentration of 0.2 mM in a 50 µl reaction mixture containing 30 mM Trizma®-HCl, pH 7.8, 50 mM NaCl and 10 mM $MgCl_2$. No conversion of the covalently closed circular DNA to the nicked or linear form was observed following agarose gel electrophoresis. Detection limit: Conversion of 1% of the DNA substrate is detectable.

RNase
Two µg of transfer RNA were incubated for 16 hours at 37°C with dATP at a final concentration of 0.2 mM in a 50 µl reaction mixture containing 30 mM Trizma®-HCl, pH 7.8, 50 mM NaCl and 10 mM $MgCl_2$. No degradation of the tRNA was detected following polyacrylamide gel electrophoresis. Detection limit: Degradation of 10% of the tRNA substrate is detectable.

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The PCR process is covered by patents owned by Hoffman-LaRoche, Inc. Purchase of these products does not convey a license under these patents. Information about licenses to PCR can be obtained from the Perkin-Elmer Corporation or Roche Molecular Systems, Inc

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