

dATP 100mM

Suitable for Research and further Manufacturing Use

| | |
|---------------------|---------------|
| Catalog No: | BIO-39036 |
| Lot No: | DS416-B124250 |
| Storage Conditions: | -20°C |
| Component Lot No: | DA-224201A |
| Expiry date: | February 2026 |

Quality Control Parameters

2'-deoxyadenosine-5'-triphosphate



MW = 514.916 g /mol

Certified <1% deoxynucleoside monophosphates and deoxynucleoside diphosphates

| Characteristics | Specification | Result |
|---|---------------------------|-------------|
| Concentration (at λ_{max} , pH 7.0, $\epsilon = 15.4 \text{ E x mmol}^{-1} \text{ x cm}^{-1}$) | 100 mM \pm 5% | 101.73 mM |
| pH of Solution(at 20°C) | 7.5 – 8.0 | 7.55 @ 22°C |
| λ_{max} (at pH 7.0) | 259 \pm 1 nm | 259.6 nm |
| A250/A260 | 0.78 \pm 0.03 | 0.78 |
| A280/A260 | 0.15 \pm 0.02 | 0.13 |
| Purity dATP (HPLC Area % at λ_{max}) | \geq 99% | 99.72 % |
| dNDP + dNMP (HPLC Area % at λ_{max}) | <1% | Passed |
| Appearance | Clear colourless solution | Passed |

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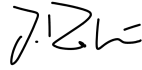
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| Analysis | Specification | Result |
|-------------------|---|--------|
| Functional | A 3Kb Lambda DNA fragment is amplified with a dilution series of dATP, using standard conditions and 30 cycles. Single distinct bands were observed with agarose gel electrophoresis (ethidium stained). | Passed |
| DNA contamination | Quantitative PCR analysis with no template. Presence of <i>E. coli</i> and mouse genomic DNA checked. Test sample must amplify in line with a reference sample. | Passed |
| DNase | Incubation of a 1Kb double stranded DNA fragment. Incubation for 4 hours at 37°C with dilution series of DNase I. Analysed by agarose gel electrophoresis. Test sample must show less degradation than the limit of detection 2.5×10^{-3} U DNase. | Passed |
| RNase | Quantitative PCR analysis with high and low RNase standards. Test sample must show less RNase activity than the limit of detection 9.7×10^{-3} ng/ μ L RNase. | Passed |
| Nicking Activity | Incubation of dATP with supercoiled control plasmid. Analysed by agarose gel electrophoresis. Test sample does not show an increase of linearized or relaxed plasmid. | Passed |

QA / QC Representative:



J. Rahnenführer

Date: 17th January 2024

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