

	Certificate of Analysis	COA No: CA_XBN-0006
		Version: 11

dATP 100mM Suitable for Research and further Manufacturing Use	Catalog No:	MDX046
	Lot No:	NU060-B338960
	Storage Conditions:	-20°C
	Component Lot No:	DA-425105A
	Expiry date:	June 2027

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, $\epsilon = 15.4 \text{ E} \times \text{mmol}^{-1} \times \text{cm}^{-1}$)	100 mM $\pm$ 5%	100.4 mM
pH of Solution (at 20°C)	7.5 – 8.0	7.57 @ 21.7°C
λ_{max} (at pH 7.0)	259 $\pm$ 1 nm	259 nm
A250/A260	0.78 $\pm$ 0.03	0.77
A280/A260	0.15 $\pm$ 0.02	0.15
Purity dATP (HPLC Area % at λ_{max})	$\geq$ 99%	99.85 %
dNDP + dNMP (HPLC Area % at λ_{max})	<1%	Passed
Appearance	Clear colourless solution	Passed

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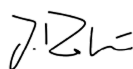
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Analysis	Specification	Result
Functional	A 3Kb Lambda DNA fragment is amplified with a dilution series of dATP, using standard conditions and 30 cycles. Single distinct bands were observed with agarose gel electrophoresis (ethidium stained).	Passed
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: 14th May 2025

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