



Certificate of Analysis

COA No: CA BN-0006

Version: 03

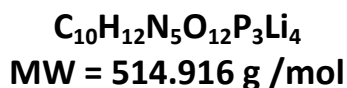
dATP 100mM

For Research Use Only

Storage Conditions:	-20°C
Lot number:	DA-314108
Expiry date:	August 2016

Quality Control Parameters

2'-deoxyadenosine-5'-triphosphate Lithium Salt



Characteristics	Specification	Result
Concentration (at λ_{max} , pH 7.0, $\epsilon = 15400 \text{ M}^{-1} \times \text{cm}^{-1}$)	100 mM \pm 5%	103.1mM
pH of Solution(at 20°C)	7.5 – 8.0	7.5
λ_{max} (at pH 7.0)	259 \pm 1 nm	260nm
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%	99.8%
Impurities: dNDP + dNMP (HPLC Area % at λ_{max})	<1%	Passed
Appearance	Clear colourless solution	Passed

Europe
Headquarters UK

info.uk@bioline.com
Tel: +44 (0)20 8830 5300
Fax: +44 (0)20 8452 2822

Europe
Germany

info.de@bioline.com
Tel: +49 (0)3371 681 229
Fax: +49 (0)3371 681 244

America

info.us@bioline.com
Tel: +1 508 880 8990
Fax: +1 508 880 8993

Australia

info.aust@bioline.com
Tel: +61 (0)2 9209 4180
Fax: +61 (0)2 9209 4763



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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 / RNase / Nicking Activity	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
	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
	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

Authorised by Kassie Hirani

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Germany

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Certificate of Analysis

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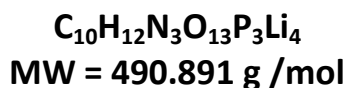
dCTP 100mM

For Research Use Only

Storage Conditions:	-20°C
Lot number:	DC-314108
Expiry date:	August 2016

Quality Control Parameters

2'-deoxycytidine-5'-triphosphate Lithium Salt



Characteristics	Specification	Result
Concentration (at λ_{max} , pH 7.0, $\epsilon = 9100 \text{ M}^{-1} \times \text{cm}^{-1}$)	100 mM \pm 5%	101.0 mM
pH of Solution(at 20°C)	7.5 – 8.0	7.5
λ_{max} (at pH 7.0)	272 \pm 1 nm	272 nm
A250/A260	0.82 \pm 0.03	0.80
A280/A260	0.98 \pm 0.03	0.97
Purity: dCTP (HPLC Area % at λ_{max})	\geq 99%	99.8%
Impurities: dNDP + dNMP (HPLC Area % at λ_{max})	<1%	Passed
Appearance	Clear colourless solution	Passed

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Analysis	Specification	Result
Functional	A 3Kb Lambda DNA fragment is amplified with a dilution series of dCTP, 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 / RNase / Nicking Activity	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
	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
	Incubation of dCTP with supercoiled control plasmid. Analysed by agarose gel electrophoresis. Test sample does not show an increase of linearized or relaxed plasmid.	Passed

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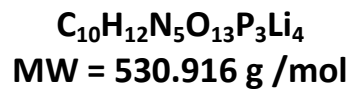
dGTP 100mM

For Research Use Only

Storage Conditions:	-20°C
Lot number:	DG-314108
Expiry date:	August 2016

Quality Control Parameters

2'-deoxyguanosine-5'-triphosphate Lithium Salt



Characteristics	Specification	Result
Concentration (at λ_{max} , pH 7.0, $\epsilon = 13700 \text{ M}^{-1} \times \text{cm}^{-1}$)	100 mM \pm 5%	102.5 mM
pH of Solution(at 20°C)	7.5 – 8.0	7.6
λ_{max} (at pH 7.0)	252 \pm 1 nm	253 nm
A250/A260	1.16 \pm 0.05	1.16
A280/A260	0.66 \pm 0.03	0.67
Purity: dNTP (HPLC Area % at λ_{max})	\geq 99%	99.6%
Impurities: dNDP + dNMP (HPLC Area % at λ_{max})	<1%	Passed
Appearance	Clear colourless solution	Passed

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Analysis	Specification	Result
Functional	A 3Kb Lambda DNA fragment is amplified with a dilution series of dGTP, 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 / RNase / Nicking Activity	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
	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
	Incubation of dGTP with supercoiled control plasmid. Analysed by agarose gel electrophoresis. Test sample does not show an increase of linearized or relaxed plasmid.	Passed

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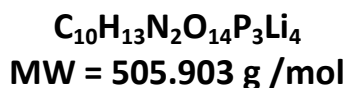
dTTP 100mM

For Research Use Only

Storage Conditions:	-20°C
Lot number:	DT-314108
Expiry date:	August 2016

Quality Control Parameters

2'-deoxythymidine-5'-triphosphate Lithium Salt



Characteristics	Specification	Result
Concentration (at λ_{max} , pH 7.0, $\epsilon = 9500 \text{ M}^{-1} \times \text{cm}^{-1}$)	100 mM \pm 5%	101.8 nM
pH of Solution(at 20°C)	7.5 – 8.0	7.6
λ_{max} (at pH 7.0)	267 \pm 1 nm	267 nm
A250/A260	0.65 \pm 0.03	0.63
A280/A260	0.73 \pm 0.02	0.73
Purity: dTTP (HPLC Area % at λ_{max})	\geq 99%	99.78%
Impurities: dNDP + dNMP (HPLC Area % at λ_{max})	<1%	Passed
Appearance	Clear colourless solution	Passed

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Analysis	Specification	Result
Functional	A 3Kb Lambda DNA fragment is amplified with a dilution series of dTTP, 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 / RNase / Nicking Activity	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
	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
	Incubation of dTTP with supercoiled control plasmid. Analysed by agarose gel electrophoresis. Test sample does not show an increase of linearized or relaxed plasmid.	Passed

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