

dGTP 100mM

Suitable for Research and further Manufacturing Use

Catalog No:	MDX048
Lot No:	NU062-B122550
Storage Conditions:	-20°C
Component Lot No:	DG-123211A
Expiry date:	December 2025

Quality Control Parameters

2'-deoxyguanosine-5'-triphosphate



MW = 530.916 g /mol

Certified <1% deoxynucleoside monophosphates and deoxynucleoside diphosphates

Characteristics	Specification	Result
Concentration (at λ_{max} , pH 7.0, $\epsilon = 13.7 \text{ E} \times \text{mmol}^{-1} \times \text{cm}^{-1}$)	100 mM \pm 5%	102.0 mM
pH of Solution(at 20°C)	7.5 – 8.0	7.54 @ 22°C
λ_{max} (at pH 7.0)	252 \pm 1 nm	252.5 nm
A250/A260	1.16 \pm 0.05	1.17
A280/A260	0.66 \pm 0.03	0.68
dNTP (HPLC Area % at λ_{max})	\geq 99%	99.86 %
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	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 dGTP 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:



Alberta Newton

 Date: 9th November 2023

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