

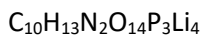
## dTTP 100mM

Suitable for Research and further Manufacturing Use

Catalog No:	BIO-39039
Lot No:	DS419-B105190
Storage Conditions:	-20°C
Component Lot No:	DT-122202A
Expiry date:	March 2024

### Quality Control Parameters

2'-deoxythymidine-5'-triphosphate



MW = 505.903 g/mol

Certified <1% deoxynucleoside monophosphates and deoxynucleoside diphosphates

Characteristics	Specification	Result
Concentration (at $\lambda_{max}$ , pH 7.0, $\epsilon = 9.5 \text{ E} \times \text{mmol}^{-1} \times \text{cm}^{-1}$ )	100 mM $\pm$ 5%	102.4 mM
pH of Solution (at 20°C)	7.5 – 8.0	7.52 @ 21.9°C
$\lambda_{max}$ (at pH 7.0)	267 $\pm$ 1 nm	267 nm
A250/A260	0.65 $\pm$ 0.03	0.64
A280/A260	0.73 $\pm$ 0.02	0.72
Purity dTTP (HPLC Area % at $\lambda_{max}$ )	$\geq$ 99%	100 %
dNDP + dNMP (HPLC Area % at $\lambda_{max}$ )	<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	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 $2.5 \times 10^{-3}$ 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 $9.7 \times 10^{-3}$ ng/ $\mu$ L RNase.	Passed
Nicking Activity	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

QA / QC Representative:



Alberta Newton

Date: 16<sup>th</sup> February 2022

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