

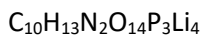
dTTP 100mM

Suitable for Research and further Manufacturing Use

Catalog No:	MDX049
Lot No:	NU063-B093640
Storage Conditions:	-20°C
Component Lot No:	DT-121103A
Expiry date:	April 2023

Quality Control Parameters

2'-deoxythymidine-5'-triphosphate



MW = 505.903 g /mol

Certified <1% deoxynucleoside monophosphates and deoxynucleoside diphosphates

Characteristics	Specification	Result
Concentration (at λ_{max} , pH 7.0, $\epsilon = 9.5 \text{ E} \times \text{mmol}^{-1} \times \text{cm}^{-1}$)	100 mM \pm 5%	102.05 mM
pH of Solution (at 20°C)	7.5 – 8.0	>99.9%
λ_{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 λ_{max})	\geq 99%	7.60 @ 22°C
dNDP + dNMP (HPLC Area % at λ_{max})	<1%	Passed
Appearance	Clear colourless solution	Passed

United Kingdom

Tel: +44 (0)20 8830 5300
Fax: +44 (0)20 8452 2822

USA

Tel: +1 901.382.8716
Fax: +1 901.382.0027

Germany

Tel: +49 (0)3371 60222 00
Fax: +49 (0)3371 60222 01

Australia

Tel: +61 (0)2 9209 4180
Fax: +61 (0)2 9209 4763

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 2.5×10^{-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 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:



Andrew Galeeba-M

 Date: 4th March 2021

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