

Certificate of Analysis

COA No: CA_XBN-0002

Version: 10

dUTP 100mM

Suitable for Research and further Manufacturing Use

Catalog No:	MDX059
Lot No:	NU075-B122390
Storage Conditions:	-20°C
Component Lot No:	DU-123111A
Expiry date: December 2025	

Quality Control Parameters

2'-deoxyuridine-5'-triphosphate $C_9H_{12}N_2O_{14}P_3Li_4$ MW = 492.884 g /mol

Certified <1% deoxynucleoside monophosphates and deoxynucleoside diphosphates

Characteristics	Specification	Result
Concentration (at λ max, pH 7.0, ϵ = 10.0 E x mmol ⁻¹ x cm ⁻¹)	100 mM ± 5%	102.2 mM
pH of Solution(at 20 °C)	7.5 – 8.0	7.54@22°C
λmax (at pH 7.0)	262 ± 1 nm	261.5 nm
A250/A260	0.75 ± 0.03	0.74
A280/A260	0.38 ± 0.05	0.34
dNTP (HPLC Area % at λmax)	≥99%	99.83%
dNDP + dAMP (HPLC Area % at λmax)	<1%	Passed
Appearance	Clear colourless solution	Passed

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Analysis	Specification	Result
Functional	A 800bp human genomic DNA fragment is amplified with a dilution series of dUTP, 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 contamination	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 x 10 ⁻³ U DNase.	Passed
RNase contamination	Quantitative PCR analysis with high and low RNase standards. Test sample must show less RNase activity than the limit of detection 9.7x10 ⁻³ ng/µL RNase.	Passed
Nicking Activity	Incubation of dUTP 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:

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