

CERTIFICATE OF ANALYSIS

Catalog #:	MDX099	Lot #:	4A02522
Description:	dCTP, 100 mM (Lithium Salt) 2'-Deoxycytidine-5'-Triphosphate Tetralithium Salt Solution		
Purity:	99.5% by HPLC (Triphosphate Content) Certified $\leq 1\%$ Deoxynucleoside Monophosphates and Deoxynucleoside Diphosphates.		
Concentration:	101mM (Optical Density Spectrophotometry) Specification: 100 mM $\pm 5\%$		
pH (22-25°C):	7.5 – 8.0	Retest Date:	December, 2023
Functional Test:	A 3 Kb Lambda DNA fragment is amplified with a dilution series of dCTPs, using standard conditions and 30 cycles. Single distinct bands were observed with agarose gel electrophoresis (ethidium stained). Results: PASSED Each batch is tested for performance in a wide range of PCR templates with <i>Taq</i> and <i>Pfu</i> DNA polymerases, tested for performance with Q-PCR.		
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. Results: PASSED		
DNase Contamination:	Incubation of a 1 Kb double stranded DNA fragment. Incubation for 4 hours at 37°C with dilution series of DNase I. Analyzed by agarose gel electrophoresis. Test sample must show less degradation than the limit of detection, 2.5×10^{-3} U DNase. Results: PASSED Certified free of nucleases (DNase, RNase), phosphatases.		
RNase Contamination:	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. Results: PASSED Certified free of nucleases (DNase, RNase), phosphatases.		
Nicking Activity:	Incubation of dCTP mix with supercoiled control plasmid. Analyzed by agarose gel electrophoresis. Test sample does not show an increase of linearized or relaxed plasmid. Results: PASSED		
Applications:	For use in PCR, cDNA synthesis, DNA sequencing and labeling procedures.		
Storage:	Store at -20°C. Avoid freeze/thaw cycles or exposure to frequent temperature changes.		
Safety Note(s):	Refer to the appropriate Safety Data Sheet (SDS) for additional information.		

Quality Signature: 

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FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY