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CERTIFICATE OF ANALYSIS

Catalog #: MDX064 **Lot #:** 13F17521

Description: dCTP, 100 mM (Sodium Salt)
2'Deoxycytidine-5'-Triphosphate Sodium Salt Solution

Purity: 99.7% by HPLC (Triphosphate Content)

Concentration: 99 mM (Optical Density Spectrophotometry)
Specification: 100 mM ± 3%

pH (22-25°C): 7.0 ± 0.1

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 *Taq* and *Pfu* DNA polymerases, tested for performance with Q-PCR.

DNA Contamination: Quantitative PCR analysis with no template. Presence of *E. coli* 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/µL 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

Re-Test Date: Two years from date of manufacture.

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: Brianna Gale 25 JUN 2021

FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY