

New England Biolabs Certificate of Analysis

Product Name: T7 DNA Polymerase (unmodified)
Catalog Number: M0274L
Concentration: 10,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme that will incorporate 10 nmoles of dNTP into acid insoluble material in 30 minutes at 37°C.
Packaging Lot Number: 10075649
Expiration Date: 10/2021
Storage Temperature: -20°C
Storage Conditions: 50 mM KPO4 , 1 mM DTT , 0.1 mM EDTA , 50 % Glycerol, (pH 7.0 @ 25°C)
Specification Version: PS-M0274S/L v1.0

| T7 DNA Polymerase (unmodified) Component List | | | |
|---|---|------------|----------------------|
| NEB Part Number | Component Description | Lot Number | Individual QC Result |
| M0274LVIAL | T7 DNA Polymerase (unmodified) | 10073734 | Pass |
| B9000SVIAL | BSA, Molecular Biology Grade | 10057616 | Pass |
| B0274AVIAL | T7 DNA Polymerase (unmodified) Reaction Bufer | 10076262 | Pass |

| Assay Name/Specification | Lot # 10075649 |
|--|----------------|
| <p>Endonuclease Activity (Nicking) A 50 µl reaction in NEBuffer 2 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 100 units of T7 DNA Polymerase (unmodified) incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.</p> | Pass |
| <p>Phosphatase Activity (pNPP) A 200 µl reaction in 1M Diethanolamine, pH 9.8, 0.5 mM MgCl2 containing 2.5 mM p-Nitrophenyl Phosphate (pNPP) and a minimum of 100 units T7 DNA Polymerase (unmodified) incubated for 4 hours at 37°C yields <0.0001 unit of alkaline phosphatase activity as determined by spectrophotometric analysis.</p> | Pass |
| <p>Protein Purity Assay (SDS-PAGE) T7 DNA Polymerase (unmodified) is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</p> | Pass |
| <p>qPCR DNA Contamination (E. coli Genomic) A minimum of 10 units of T7 DNA Polymerase (unmodified) is screened for the presence of E. coli genomic DNA using SYBR® Green qPCR with primers specific for the E. coli</p> | Pass |

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| 16S rRNA locus. Results are quantified using a standard curve generated from purified E. coli genomic DNA. The measured level of E. coli genomic DNA contamination is ≤ 1 E. coli genome. | |

This product has been tested and shown to be in compliance with all specifications.

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Production Scientist
29 Jul 2020



Michael Tonello
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29 Jul 2020