

New England Biolabs Certificate of Analysis

Product Name: T4 DNA Polymerase
Catalog Number: M0203S
Concentration: 3,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme that will incorporate 10 nmol of dNTP into acid insoluble material in 30 minutes at 37°C.
Packaging Lot Number: 10070264
Expiration Date: 08/2021
Storage Temperature: -20°C
Storage Conditions: 100 mM KPO₄, 1 mM DTT, 50 % Glycerol, (pH 6.5 @ 25°C)
Specification Version: PS-M0203S/L v1.0

| T4 DNA Polymerase Component List | | | |
|----------------------------------|-----------------------|------------|----------------------|
| NEB Part Number | Component Description | Lot Number | Individual QC Result |
| M0203SVIAL | T4 DNA Polymerase | 10049669 | Pass |
| B7202SVIAL | NEBuffer™ 2.1 | 10067776 | Pass |

| Assay Name/Specification | Lot # 10070264 |
|--|----------------|
| <p>Endonuclease Activity (Nicking) A 50 µl reaction in NEBuffer 2 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 50 units of T4 DNA Polymerase 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 T4 DNA Polymerase 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) T4 DNA Polymerase 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 3 units of T4 DNA Polymerase is screened for the presence of E. coli genomic DNA using SYBR® Green qPCR with primers specific for the E. coli 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</p> | Pass |

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|--------------------------|----------------|
| genome. | |

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



Christie Vazquez
Production Scientist
21 Apr 2020



Jay Minichiello
Packaging Quality Control Inspector
21 Apr 2020