

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: 10253683
Expiration Date: 08/2026
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)	10253681	Pass
B9200SVIAL	Recombinant Albumin, Molecular Biology G	10237090	Pass
B0274AVIAL	T7 DNA Polymerase (unmodified) Reaction Bufer	10253682	Pass

Assay Name/Specification	Lot # 10253683
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.	Pass
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.	Pass
Protein Purity Assay (SDS-PAGE) T7 DNA Polymerase (unmodified) is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass
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	Pass

Assay Name/Specification	Lot # 10253683
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.

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit www.neb.com/trademarks for additional information.



Trinh Nguyen
Production Scientist
27 Sep 2024



Michael Tonello
Packaging Quality Control Inspector
30 Sep 2024