

New England Biolabs Certificate of Analysis

Product Name: T7 DNA Polymerase (unmodified)
Catalog Number: M0274S
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: 10059218
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
M0274SVIAL	T7 DNA Polymerase (unmodified)	10058490	Pass
B9000SVIAL	BSA, Molecular Biology Grade	10057616	Pass
B0274AVIAL	T7 DNA Polymerase (unmodified) Reaction Buffer	10059590	Pass

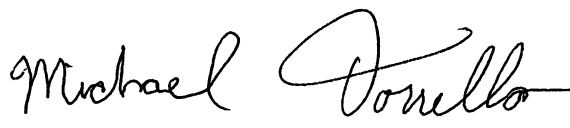
Assay Name/Specification	Lot # 10059218
Protein Purity Assay (SDS-PAGE) T7 DNA Polymerase (unmodified) is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass
qPCR DNA Contamination (E. coli Genomic) A minimum of 10 units of T7 DNA Polymerase (unmodified) is screened for the presence of E. coli genomic DNA using SYBR® Green qPCR with primers specific for the E. coli 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.	Pass
Phosphatase Activity (pNPP) A 200 µl reaction in 1M Diethanolamine, pH 9.8, 0.5 mM MgCl ₂ 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
Endonuclease Activity (Nicking) A 50 µl reaction in NEBuffer 2 containing 1 µg of supercoiled PhiX174 DNA and a	Pass

Assay Name/Specification	Lot # 10059218
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.	

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



Christie Vazquez
Production Scientist
31 Oct 2019



Michael Tonello
Packaging Quality Control Inspector
03 Jan 2020