NEW ENGLAND BioLabs Inc.
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240 County Road
Ipswich, MA 01938-2723
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www.neb.com
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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:	*10114913*
Expiration Date:	*07/2023*
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)	10112002	**Pass**
B9200SVIAL	Recombinant Albumin, Molecular Biology G	10106371	**Pass**
B0274AVIAL	T7 DNA Polymerase (unmodified) Reaction Bufer	10091673	**Pass**

Assay Name/Specification	Lot # 10114913
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**
Protein Purity Assay (SDS-PAGE) T7 DNA Polymerase (unmodified) is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	**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**
Endonuclease Activity (Nicking) A 50 µl reaction in NEBuffer 2 containing 1 µg of supercoiled PhiX174 DNA and a	**Pass**

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Assay Name/Specification	Lot # 10114913
minimum of 100 units of T7 DNA Polymerase (unmodified) incubated for 4 hours at 37ºC 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.

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.

Christie Vazquez
Production Scientist
13 Jul 2021

Michael Tonello
Packaging Quality Control Inspector
13 Jul 2021