

New England Biolabs Certificate of Analysis

Product Name: T4 DNA Polymerase
Catalog Number: M0203L
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: 10164996
Expiration Date: 09/2024
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
M0203LVIAL	T4 DNA Polymerase	10163768	Pass
B6002SVIAL	NEBuffer™ r2.1	10154052	Pass

Assay Name/Specification	Lot # 10164996
<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 genome.</p>	Pass
<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</p>	Pass

Assay Name/Specification	Lot # 10164996
as determined by spectrophotometric analysis.	

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
20 Sep 2022



Michael Tonello
Packaging Quality Control Inspector
14 Oct 2022