

## 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:** 10063553  
**Expiration Date:** 08/2021  
**Storage Temperature:** -20°C  
**Storage Conditions:** 100 mM KPO<sub>4</sub>, 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 # 10063553
<b>Protein Purity Assay (SDS-PAGE)</b> T4 DNA Polymerase is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass
<b>Phosphatase Activity (pNPP)</b> A 200 µl reaction in 1M Diethanolamine, pH 9.8, 0.5 mM MgCl <sub>2</sub> 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.	Pass
<b>qPCR DNA Contamination (E. coli Genomic)</b> 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.	Pass
<b>Endonuclease Activity (Nicking)</b> 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	Pass

Assay Name/Specification	Lot # 10063553
<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  
12 Sep 2019



Josh Hersey  
Packaging Quality Control Inspector  
14 Feb 2020