

## 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.  
**Lot Number:** 10021832  
**Expiration Date:** 06/2020  
**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	10009867	Pass
B7202SVIAL	NEBuffer™ 2.1	0261805	Pass

Assay Name/Specification	Lot # 10021832
<p><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 &lt;10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	Pass
<p><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 &lt;0.0001 unit of alkaline phosphatase activity as determined by spectrophotometric analysis.</p>	Pass
<p><b>Protein Purity Assay (SDS-PAGE)</b>            T4 DNA Polymerase is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</p>	Pass
<p><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</p>	Pass

Assay Name/Specification	Lot # 10021832
genome.	

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



Lynne Apone  
Production Scientist  
09 Jul 2018



Michael Tonello  
Packaging Quality Control Inspector  
12 Sep 2018