

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: 10127969
Expiration Date: 10/2023
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
M0203SVIAL	T4 DNA Polymerase	10125075	Pass
B6002SVIAL	NEBuffer™ r2.1	10102965	Pass

Assay Name/Specification	Lot # 10127969
<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>Protein Purity Assay (SDS-PAGE) T4 DNA Polymerase is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</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 as determined by spectrophotometric analysis.</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</p>	Pass

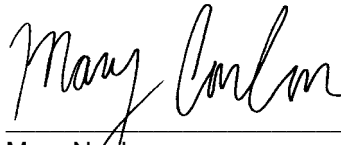
Assay Name/Specification	Lot # 10127969
<10% conversion to the nicked form as determined by agarose gel electrophoresis.	

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

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Christie Vazquez
Production Scientist
19 Nov 2021



Mary Neal
Packaging Quality Control Inspector
19 Nov 2021