

New England Biolabs Certificate of Analysis

Product Name: DNA Polymerase I (*E. coli*)
Catalog Number: M0209S
Concentration: 10,000 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: 10060132
Expiration Date: 11/2021
Storage Temperature: -20°C
Storage Conditions: 25 mM Tris-HCl , 1 mM DTT , 0.1 mM EDTA , 50 % Glycerol, (pH 7.4 @ 25°C)
Specification Version: PS-M0209S/L v1.0

DNA Polymerase I (<i>E. coli</i>) Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0209SVIAL	DNA Polymerase I (<i>E. coli</i>)	10057072	Pass
B7002SVIAL	NEBuffer™ 2	10052180	Pass

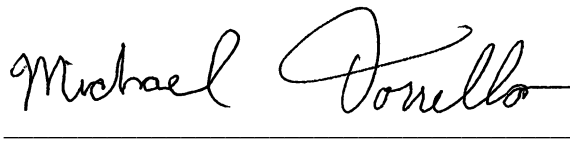
Assay Name/Specification	Lot # 10060132
Protein Purity Assay (SDS-PAGE) DNA Polymerase I (<i>E. coli</i>) is ≥ 99% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass
RNase Activity (Extended Digestion) A 10 µl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 µl of DNA Polymerase I (<i>E. coli</i>) is incubated at 37°C. After incubation for 16 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.	Pass
qPCR DNA Contamination (<i>E. coli</i> Genomic) A minimum of 10 units of DNA Polymerase I (<i>E. coli</i>) is screened for the presence of <i>E. coli</i> genomic DNA using SYBR® Green qPCR with primers specific for the <i>E. coli</i> 16S rRNA locus. Results are quantified using a standard curve generated from purified <i>E. coli</i> genomic DNA. The measured level of <i>E. coli</i> genomic DNA contamination is ≤ 1 <i>E. coli</i> genome.	Pass
Phosphatase Activity (pNPP) A 200 µl reaction in 1M Diethanolamine, pH 9.8, 0.5 mM MgCl ₂ containing 2.5 mM	Pass

Assay Name/Specification	Lot # 10060132
<p>p-Nitrophenyl Phosphate (pNPP) and a minimum of 100 units DNA Polymerase I (E. coli) incubated for 4 hours at 37°C yields <0.0001 unit of alkaline phosphatase activity as determined by spectrophotometric analysis.</p> <p>Endonuclease Activity (Nicking) A 50 µl reaction in NEBuffer 2 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 100 units of DNA Polymerase I (E. coli) incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	<p>Pass</p>

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



Christie Vazquez
Production Scientist
14 Nov 2019



Michael Tonello
Packaging Quality Control Inspector
12 Dec 2019