

New England Biolabs Certificate of Analysis

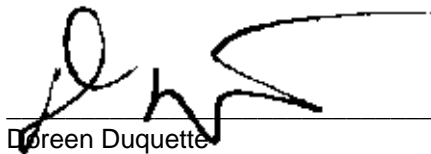
Product Name: LongAmp[®] Taq DNA Polymerase
Catalog Number: M0323L
Concentration: 2,500 U/ml
Unit Definition: One unit is defined as the amount of enzyme that will incorporate 10 nmol of dNTP into acid insoluble material in 30 minutes at 75°C.
Lot Number: 10054150
Expiration Date: 08/2021
Storage Temperature: -20°C
Storage Conditions: 10 mM Tris-HCl , 100 mM KCl , 1 mM DTT , 0.1 mM EDTA , 0.5 % Tween[®] 20 , 0.5 % IGEPAL[®] CA-630 , 50 % Glycerol, (pH 7.4 @ 25°C)
Specification Version: PS-M0323S/L v1.0

LongAmp [®] Taq DNA Polymerase Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0323LVIAL	LongAmp [®] Taq DNA Polymerase	10049391	Pass
B0323SVIAL	LongAmp [®] Taq Reaction Buffer	10042779	Pass

Assay Name/Specification	Lot # 10054150
<p>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 LongAmp[®] Taq DNA Polymerase 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.</p>	Pass
<p>qPCR DNA Contamination (E. coli Genomic) A minimum of 2.5 units of LongAmp[®] Taq 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>PCR Amplification (30 kb Lambda DNA) A 25 µl reaction in LongAmp[®] Taq Reaction Buffer in the presence of 300 µM dNTPs and 0.4 µM primers containing 1 ng Lambda DNA with 2.5 units of LongAmp[®] Taq DNA Polymerase for 28 cycles of PCR amplification results in the expected 30 kb product.</p>	Pass
<p>PCR Amplification (30 kb Human Genomic DNA)</p>	Pass

Assay Name/Specification	Lot # 10054150
<p>A 25 µl reaction in LongAmp® Taq Reaction Buffer in the presence of 300 µM dNTPs and 0.4 µM primers containing 500 ng Human Genomic DNA with 2.5 units of LongAmp® Taq DNA Polymerase for 28 cycles of PCR amplification results in the expected 30 kb product.</p> <p>Non-Specific DNase Activity (16 Hour) A 50 µl reaction in NEBuffer 2 containing 1 µg of T3 DNA in addition to a reaction containing Lambda-HindIII DNA and a minimum of 2.5 units of LongAmp® Taq DNA Polymerase incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.</p>	<p>Pass</p>

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



Doreen Duquette
Production Scientist
21 Jun 2019



Michael Tonello
Packaging Quality Control Inspector
10 Oct 2019