

## New England Biolabs Certificate of Analysis

**Product Name:** LongAmp® Taq 2X Master Mix  
**Catalog Number:** M0287S  
**Concentration:** 2 X Concentrate  
**Packaging Lot Number:** 10149749  
**Expiration Date:** 10/2023  
**Storage Temperature:** -20°C  
**Specification Version:** PS-M0287S/L v2.0  
**Composition (1X):** 60 mM Tris-SO4 (pH 9.1 @ 25°C), 20 mM (NH4)2SO4, 2 mM MgSO4, 0.3 mM dATP, 0.3 mM dCTP, 0.3 mM dGTP, 0.3 mM dTTP, 3 % Glycerol, 0.06 % IGEPAL® CA-630, 0.05 % Tween® 20, 125 units/ml LongAmp® Taq DNA Polymerase

LongAmp® Taq 2X Master Mix Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0287SVIAL	LongAmp® Taq 2X Master Mix	10146121	Pass

Assay Name/Specification	Lot # 10149749
<p><b>Non-Specific DNase Activity (16 hour, Buffer)</b>            A 50 µl reaction in 1X LongAmp® Taq Master Mix containing 1 µg of T3 or T7 DNA in addition to a reaction containing Lambda-HindIII DNA incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.</p>	Pass
<p><b>RNase Activity (Extended Digestion)</b>            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 2X Master Mix is incubated at 37°C. After incubation for 4 hours, &gt;90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.</p>	Pass
<p><b>qPCR DNA Contamination (E. coli Genomic)</b>            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><b>PCR Amplification (30 kb Human Genomic DNA, Master Mix)</b>            A 25 µl reaction in 1X LongAmp® Taq Master Mix and 0.4 µM primers containing 500 ng</p>	Pass

Assay Name/Specification	Lot # 10149749
<p>Human Genomic DNA for 28 cycles of PCR amplification results in the expected 30 kb product.</p> <p><b>PCR Amplification (30 kb Lambda DNA, Master Mix)</b> A 25 µl reaction in 1X LongAmp® Taq Master Mix and 0.4 µM primers containing 1 ng Lambda DNA for 28 cycles of PCR amplification results in the expected 30 kb product.</p>	<p><b>Pass</b></p>

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

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