

## New England Biolabs Certificate of Analysis

**Product Name:** LongAmp® Taq 2X Master Mix  
**Catalog Number:** M0287L  
**Concentration:** 2 X Concentrate  
**Lot Number:** 10036832  
**Expiration Date:** 08/2020  
**Storage Temperature:** -20°C  
**Specification Version:** PS-M0287S/L v1.0  
**Composition (1X):** 60 mM Tris-SO<sub>4</sub> (pH 9.1 @ 25°C), 20 mM (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>, 2 mM MgSO<sub>4</sub>, 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 | 10032960   | Pass                 |

| Assay Name/Specification  | Lot # 10036832 |
|---|----------------|
| <b>Non-Specific DNase Activity (16 hour, Buffer)</b><br>A 50 µl reaction in 1X LongAmp® Taq Master Mix containing 1 µg of T3 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.  | Pass           |
| <b>RNase Activity (Extended Digestion)</b><br>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, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.  | Pass           |
| <b>qPCR DNA Contamination (E. coli Genomic)</b><br>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. | Pass           |
| <b>PCR Amplification (30 kb Lambda DNA, Master Mix)</b><br>A 25 µl reaction in 1X LongAmp® Taq Master Mix and 0.4 µM primers containing 1 ng  | Pass           |

| Assay Name/Specification  | Lot # 10036832     |
|---|--------------------|
| <p>Lambda DNA for 28 cycles of PCR amplification results in the expected 30 kb product.</p> <p><b>PCR Amplification (30 kb Human Genomic DNA, Master Mix)</b><br/>A 25 µl reaction in 1X LongAmp® Taq Master Mix and 0.4 µM primers containing 500 ng Human Genomic 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.



Christie Vazquez  
Production Scientist  
27 Feb 2019



Michael Tonello  
Packaging Quality Control Inspector  
01 Mar 2019