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240 County Road Ipswich, MA 01938-2723 Tel 978-927-5054 Fax 978-921-1350 www.neb.com info@neb.com

## New England Biolabs Certificate of Analysis

| Product Name:          | LongAmp® Taq 2X Master Mix                                                                                                                                                                                                |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Catalog Number:        | M0287S                                                                                                                                                                                                                    |
| Concentration:         | 2 X Concentrate                                                                                                                                                                                                           |
| Packaging Lot Number:  | 10163824                                                                                                                                                                                                                  |
| Expiration Date:       | 01/2024                                                                                                                                                                                                                   |
| 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<br>dATP, 0.3 mM dCTP, 0.3 mM dGTP, 0.3 mM dTTP, 3 % Glycerol, 0.06 %<br>IGEPAL® CA-630, 0.05 % Tween® 20, 125 units/ml LongAmp® Taq DNA<br>Polymerase |

| LongAmp® Taq 2X Master Mix Component List |                            |            |                      |  |
|-------------------------------------------|----------------------------|------------|----------------------|--|
| <b>NEB Part Number</b>                    | Component Description      | Lot Number | Individual QC Result |  |
| M0287SVIAL                                | LongAmp® Taq 2X Master Mix | 10154460   | Pass                 |  |

| Assay Name/Specification                                                                                                                                                                                                                                                                                                                                                                                                        | Lot # 10163824 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <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 or T7 DNA in<br>addition to a reaction containing Lambda-HindIII DNA incubated for 16 hours at 37°C<br>results in a DNA pattern free of detectable nuclease degradation as determined by<br>agarose gel electrophoresis.                                                                           | 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<br>Lambda DNA for 28 cycles of PCR amplification results in the expected 30 kb product.                                                                                                                                                                                            | Pass           |
| PCR Amplification (30 kb Human Genomic DNA, Master Mix)<br>A 25 $\mu$ I reaction in 1X LongAmp® Taq Master Mix and 0.4 $\mu$ M primers containing 500 ng<br>Human Genomic DNA for 28 cycles of PCR amplification results in the expected 30 kb<br>product.                                                                                                                                                                      | 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<br>of E. coli genomic DNA using SYBR® Green qPCR with primers specific for the E. coli<br>16S rRNA locus. Results are quantified using a standard curve generated from<br>purified E. coli genomic DNA. The measured level of E. coli genomic DNA<br>contamination is ≤ 1 E. coli genome. | Pass           |





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| Assay Name/Specification                                                          | Lot # 10163824 |
|-----------------------------------------------------------------------------------|----------------|
|                                                                                   | _              |
| RNase Activity (Extended Digestion)                                               | Pass           |
| 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.                                  |                |

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

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit www.neb.com/trademarks for additional information.

my 2mg

Trinh Nguyen Production Scientist 20 Jul 2022

on. l. Michael

Michael Tonello Packaging Quality Control Inspector 19 Sep 2022

