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 #:
 M0287S/L

 Concentration:
 2X Concentrate

 Lot #:
 0301702

 Assay Date:
 02/2017

 Expiration Date:
 8/2018

 Storage Temp:
 -20°C

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

Specification Version: PS-M0287S/L v1.0

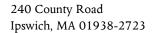
Effective Date: 10 Feb 2017

Assay Name/Specification (minimum release criteria)	Lot #0301702
Non-Specific DNase Activity (16 hour, Buffer) - A 50 µl reaction in 1X LongAmp® <i>Taq</i> 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>PCR Amplification (30 kb Human Genomic DNA, Master Mix)</b> - A 25 μl reaction in 1X LongAmp® <i>Taq</i> 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.	Pass
PCR Amplification (30 kb Lambda DNA, Master Mix) - A 25 μl reaction in 1X LongAmp® <i>Taq</i> 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.	Pass
<b>qPCR DNA Contamination (</b> <i>E. coli</i> <b>Genomic)</b> - A minimum of 2.5 units of LongAmp® $Taq$ DNA Polymerase 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 $\leq 1$ <i>E. coli</i> genome.	Pass
RNase Activity (Extended Digestion) - A 10 $\mu$ l reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 $\mu$ l 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









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Authorized by Karen Moreira 10 Feb 2017







Inspected by
Tony Spear-Alfonso
23 Feb 2017