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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:	Luna® Universal qPCR Master Mix
Catalog Number:	M3003X
Concentration:	2 X Concentrate
Lot Number:	10047123
Expiration Date:	01/2021
Storage Temperature:	-20°C
Specification Version:	PS-M3003S/L/G/X/E v1.0
Composition (1X):	Proprietary

Luna® Universal qPCR Master Mix Component List				
<b>NEB Part Number</b>	Component Description	Lot Number	Individual QC Result	
M3003L	Luna® Universal qPCR Master Mix	10045138	Pass	

Assay Name/Specification	Lot # 10047123
<b>RNase Activity Assay (4 Hour 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 Luna® Universal qPCR 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>Functional Testing (qPCR)</b> Luna® Universal qPCR Master Mix is functionally tested in qPCR with human cDNA template, resulting in a standard curve with a calculated qPCR efficiency of 90-110%, and a dynamic range of 5 orders of magnitude.	Pass
<b>Non-Specific DNase Activity (16 hour, Master Mix)</b> A 50 µl reaction in 1X Luna® Universal qPCR 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>qPCR DNA Contamination (E. coli Genomic)</b> A minimum of 1 $\mu$ l of Luna® Universal qPCR Master Mix 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 $\leq$ 1 E. coli genome.	Pass





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

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Christie Vazquez Production Scientist 21 Jun 2019

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Michael Tonello Packaging Quality Control Inspector 21 Jun 2019

