

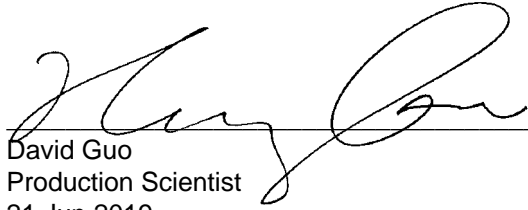
## New England Biolabs Certificate of Analysis

*Product Name:* Luna® Universal qPCR Master Mix  
*Catalog Number:* M3003E  
*Concentration:* 2 X Concentrate  
*Lot Number:* 10048788  
*Expiration Date:* 06/2021  
*Storage Temperature:* -20°C  
*Specification Version:* PS-M3003S/L/G/X/E v1.0  
*Composition (1X):* Proprietary

Luna® Universal qPCR Master Mix Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M3003EVIAL	Luna® Universal qPCR Master Mix	10048188	Pass

Assay Name/Specification	Lot # 10048788
<p><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.</p>	Pass
<p><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.</p>	Pass
<p><b>qPCR DNA Contamination (E. coli Genomic)</b>            A minimum of 1 µl 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 ≤ 1 E. coli genome.</p>	Pass
<p><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, &gt;90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.</p>	Pass

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

  
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David Guo  
Production Scientist  
21 Jun 2019

  
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Michael Tonello  
Packaging Quality Control Inspector  
15 Jul 2019