

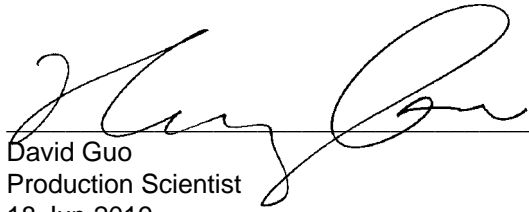
## New England Biolabs Certificate of Analysis

Product Name: Luna® Universal qPCR Master Mix  
 Catalog Number: M3003L  
 Concentration: 2 X Concentrate  
 Packaging Lot Number: 10058035  
 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
M3003SVIAL	Luna® Universal qPCR Master Mix	10036830	Pass

Assay Name/Specification	Lot # 10058035
<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
<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

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

  
David Guo  
Production Scientist  
18 Jun 2019

  
Josh Hersey  
Packaging Quality Control Inspector  
22 Nov 2019