

## New England Biolabs Certificate of Analysis

**Product Name:** Luna<sup>®</sup> Universal qPCR Master Mix  
**Catalog #:** M3003S/L/G/X/E  
**Concentration:** 2X Concentrate  
**Lot #:** 0081706  
**Assay Date:** 06/2017  
**Expiration Date:** 06/2019  
**Storage Temp:** -20°C  
**Composition (1X):** Proprietary  
**Specification Version:** PS-M3003S/L/G/X/E v1.0  
**Effective Date:** 14 Jun 2017

Assay Name/Specification (minimum release criteria)	Lot #0081706
<p><b>Functional Testing (qPCR)</b> - Luna<sup>®</sup> 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>	<b>Pass</b>
<p><b>Non-Specific DNase Activity (16 hour, Master Mix)</b> - A 50 µl reaction in 1X Luna<sup>®</sup> 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>	<b>Pass</b>
<p><b>qPCR DNA Contamination (E. coli Genomic)</b> - A minimum of 1 µl of Luna<sup>®</sup> Universal qPCR Master Mix is screened for the presence of <i>E. coli</i> genomic DNA using SYBR<sup>®</sup> 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 ≤ 1 <i>E. coli</i> genome.</p>	<b>Pass</b>
<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<sup>®</sup> 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>	<b>Pass</b>



Authorized by  
Melanie Fortier  
14 Jun 2017



Inspected by  
Tony Spear-Alfonso  
09 Aug 2017

