

## New England Biolabs Certificate of Analysis

**Product Name:** Luna® Universal qPCR Master Mix  
**Catalog Number:** M3003X  
**Concentration:** 2 X Concentrate  
**Packaging Lot Number:** 10061053  
**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
M3003L	Luna® Universal qPCR Master Mix	10058035	Pass

Assay Name/Specification	Lot # 10061053
<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>	<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® 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>
<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>	<b>Pass</b>
<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>	<b>Pass</b>

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



Christie Vazquez  
Production Scientist  
22 Nov 2019



Josh Hersey  
Packaging Quality Control Inspector  
22 Nov 2019