Product Name: Luna® Universal qPCR Master Mix
Catalog Number: M3003X
Concentration: 2 X Concentrate
Packaging Lot Number: 10154381
Expiration Date: 04/2024
Storage Temperature: -20°C
Specification Version: PS-M3003S/L/G/X/E v2.0
Composition (1X): Proprietary

<table>
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<th>NEB Part Number</th>
<th>Component Description</th>
<th>Lot Number</th>
<th>Individual QC Result</th>
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<td>Luna® Universal qPCR Master Mix</td>
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**Assay Name/Specification**

**Functional Testing (qPCR)**
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.

**qPCR DNA Contamination (E. coli Genomic)**
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.

**RNase Activity Assay (4 Hour Digestion)**
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.

**Non-Specific DNase Activity (16 hour, Master Mix)**
A 50 µl reaction in 1X Luna® Universal qPCR Master Mix containing 1 µg of T3 or T7 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.
This product has been tested and shown to be in compliance with all specifications.

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit www.neb.com/trademarks for additional information.

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Production Scientist  
17 Jun 2022

Josh Hersey  
Packaging Quality Control Inspector  
17 Jun 2022