

## New England Biolabs Certificate of Analysis

**Product Name:** Luna<sup>®</sup> Probe One-Step RT-qPCR 4X Mix with UDG  
**Catalog Number:** M3019X  
**Concentration:** 4 X Concentrate  
**Packaging Lot Number:** 10170513  
**Expiration Date:** 08/2023  
**Storage Temperature:** -20°C  
**Specification Version:** PS-M3019S/L/X v1.0  
**Composition (1X):** Proprietary

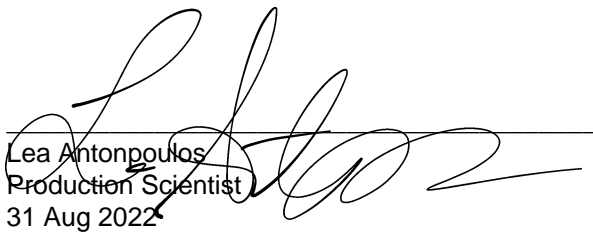
Luna <sup>®</sup> Probe One-Step RT-qPCR 4X Mix with UDG Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M3019LVIAL	Luna <sup>®</sup> Probe One-Step RT-qPCR 4X Mix with UDG	10162129	Pass
B1502AVIAL	Nuclease-free Water	10154305	Pass

Assay Name/Specification	Lot # 10170513
<p><b>Non-Specific DNase Activity (16 hour, Buffer)</b>            A 50 µl reaction in 1X Luna<sup>®</sup> Probe One-Step RT-qPCR Mix with UDG 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.</p>	Pass
<p><b>Functional Testing (One-Step RT-qPCR)</b>            Luna<sup>®</sup> Probe One-Step RT-qPCR 4X Mix with UDG is functionally tested in One-Step RT-qPCR with human RNA template, resulting in a standard curve with a calculated qPCR efficiency of 90-110%, and a dynamic range of 8 orders of magnitude.</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<sup>®</sup> Probe One-Step RT-qPCR 4X Mix with UDG 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>qPCR DNA Contamination (E. coli Genomic)</b>            A minimum of 1 µl of Luna<sup>®</sup> Probe One-Step RT-qPCR 4X Mix with UDG is screened for the presence of E. coli genomic DNA using SYBR<sup>®</sup> Green qPCR with primers specific for</p>	Pass

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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 $\leq 1$ E. coli genome.	

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

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31 Aug 2022



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17 Nov 2022