

## New England Biolabs Certificate of Analysis

**Product Name:** Luna® Probe One-Step RT-qPCR 4X Mix with UDG  
**Catalog Number:** M3019X  
**Concentration:** 4 X Concentrate  
**Packaging Lot Number:** 10179722  
**Expiration Date:** 11/2023  
**Storage Temperature:** -20°C  
**Specification Version:** PS-M3019S/L/X v2.0  
**Composition (1X):** Proprietary

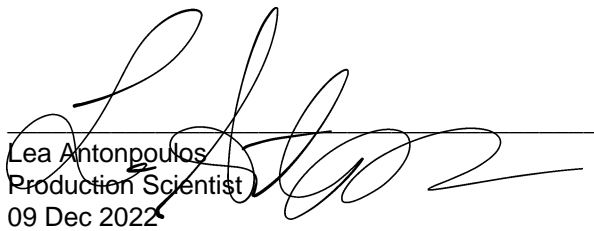
| Luna® Probe One-Step RT-qPCR 4X Mix with UDG Component List |  |            |                      |
|---|--|------------|----------------------|
| NEB Part Number   | Component Description                        | Lot Number | Individual QC Result |
| M3019LVIAL  | Luna® Probe One-Step RT-qPCR 4X Mix with UDG | 10167524   | Pass                 |
| B1502AVIAL  | Nuclease-free Water                          | 10164121   | Pass                 |

| Assay Name/Specification  | Lot # 10179722 |
|---|----------------|
| <b>Non-Specific DNase Activity (16 hour, Buffer)</b><br>A 50 µl reaction in 1X Luna® 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.  | Pass           |
| <b>qPCR DNA Contamination (E. coli Genomic)</b><br>A minimum of 1 µl of Luna® Probe One-Step RT-qPCR 4X Mix with UDG 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. | Pass           |
| <b>RNase Activity Assay (4 Hour Digestion)</b><br>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® Probe One-Step RT-qPCR 4X Mix with UDG 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.  | Pass           |
| <b>Functional Testing (One-Step RT-qPCR)</b>  | Pass           |

| Assay Name/Specification   | Lot # 10179722 |
|--|----------------|
| Luna® 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. |                |

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](http://www.neb.com/trademarks) for additional information.



Lea Antonopoulos  
Production Scientist  
09 Dec 2022



Michael Tonello  
Packaging Quality Control Inspector  
02 Feb 2023