

be INSPIRED drive DISCOVERY stay GENUINE

240 County Road Ipswich, MA 01938-2723 Tel 978-927-5054 Fax 978-921-1350 www.neb.com info@neb.com

## New England Biolabs Certificate of Analysis

| Luna® Probe One-Step RT-qPCR 4X Mix with UDG |
|--|
| M3019X                                       |
| 4 X Concentrate                              |
| 10138429                                     |
| 01/2023                                      |
| -20°C  |
| PS-M3019S/L/X v1.0                           |
| 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 | 10135892   | Pass                 |  |  |
| B1502AVIAL  | Nuclease-free Water                          | 10074615   | Pass                 |  |  |

| Assay Name/Specification  | Lot # 10138429 |
|---|----------------|
| <b>Functional Testing (One-Step RT-qPCR)</b><br>Luna® Probe One-Step RT-qPCR 4X Mix with UDG is functionally tested in One-Step<br>RT-qPCR with human RNA template, resulting in a standard curve with a calculated<br>qPCR efficiency of 90-110%, and a dynamic range of 8 orders of magnitude.  | 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<br>and a minimum of 1 µl of Luna® Probe One-Step RT-qPCR 4X Mix with UDG is incubated<br>at 37°C. After incubation for 4 hours, >90% of the substrate RNA remains intact as<br>determined by gel electrophoresis using fluorescent detection. | Pass           |
| <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<br>T3 or T7 DNA in addition to a reaction containing Lambda-HindIII DNA incubated for<br>16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as<br>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<br>the presence of E. coli genomic DNA using SYBR® Green qPCR with primers specific for  | 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 ≤ 1 E. coli genome.   |                |

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.

vaistie Vayanez

Christie Vazquez Production Scientist 18 Feb 2022

Michae

Michael Tonello Packaging Quality Control Inspector 18 Feb 2022

