NEW ENGLAND BioLabs Inc.
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New England Biolabs
Certificate of Analysis

Product Name: *Luna® Probe One-Step RT-qPCR 4X Mix with UDG*
Catalog Number: *M3019E*
Concentration: *4 X Concentrate*
Packaging Lot Number: *10162118*
Expiration Date: *08/2023*
Storage Temperature: *-20°C*
Specification Version: *PS-M3019E v1.0*
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
M3019EVIAL	Luna® Probe One-Step RT-qPCR 4X Mix with UDG	10162111	**Pass**
B1502EVIAL	Nuclease-free Water	10151184	**Pass**

Assay Name/Specification	Lot # 10162118
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® 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**
qPCR DNA Contamination (E. coli Genomic) 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**
Non-Specific DNase Activity (16 hour, Buffer) 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**

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Assay Name/Specification	Lot # 10162118
Functional Testing (One-Step RT-qPCR) 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.	**Pass**

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.

Trinh Nguyen
Production Scientist
09 Sep 2022

Josh Hersey
Packaging Quality Control Inspector
13 Oct 2022