

## New England Biolabs Certificate of Analysis

**Product Name:** Luna® Probe One-Step RT-qPCR 4X Mix with UDG  
**Catalog Number:** M3019S  
**Concentration:** 4 X Concentrate  
**Packaging Lot Number:** 10140630  
**Expiration Date:** 01/2023  
**Storage Temperature:** -20°C  
**Specification Version:** PS-M3019S/L/X 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
M3019SVIAL	Luna® Probe One-Step RT-qPCR 4X Mix with UDG	10137519	Pass
B1502AVIAL	Nuclease-free Water	10135544	Pass

Assay Name/Specification	Lot # 10140630
<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® 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>Non-Specific DNase Activity (16 hour, Buffer)</b> 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> 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>Functional Testing (One-Step RT-qPCR)</b>	Pass

Assay Name/Specification	Lot # 10140630
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.

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