

## New England Biolabs Product Specification

*Product Name:* LyoPrime Luna<sup>®</sup> Probe One-Step RT-qPCR Mix with UDG  
*Catalog #:* L4001P  
*Shelf Life:* 24 months  
*Storage Temp:* 15°C to 25°C  
*Composition:* Proprietary  
*Specification Version:* PS-L4001P v1.0  
*Effective Date:* 03 Oct 2023

### Assay Name/Specification (minimum release criteria)

**Functional Testing (One-Step RT-qPCR)** - LyoPrime Luna<sup>®</sup> Probe One-Step RT-qPCR Mix 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.

**Non-Specific DNase Activity (16 hour, Buffer)** - A 50 µl reaction in 1X LyoPrime 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.

**qPCR DNA Contamination (*E. coli* Genomic)** - A minimum of 1 µl of 2X LyoPrime Luna<sup>®</sup> Probe One-Step RT-qPCR Mix with UDG is screened for the presence of *E. coli* genomic DNA using SYBR<sup>®</sup> 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.

**RNase Activity (Extended 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 2X LyoPrime Luna<sup>®</sup> Probe One-Step RT-qPCR 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.

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Lauren Brown  
Quality Approver

