

It's prime time!

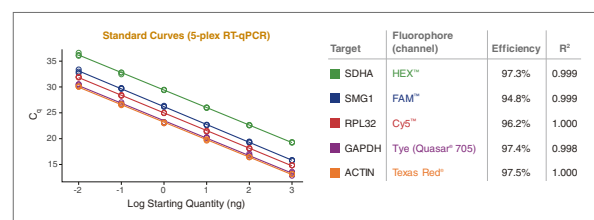
LyoPrime Luna™ Probe One-Step RT-qPCR Mix with UDG

Supplied as a lyophilized cake, the LyoPrime Luna Probe One-Step RT-qPCR Mix with UDG (NEB #L4001) enables sensitive detection of target RNA sequences in a room temperature-stable format. This product contains the same versatile features and strong performance as the liquid version: Luna® Probe One-Step RT-qPCR 4X Mix with UDG (NEB #M3019).

- Simply add nuclease-free water for rapid rehydration
- Store at room temperature for up to 2 years prior to rehydration
- Eliminate cold chain shipping requirements
- Multiplex up to 5 targets to increase throughput
- Same versatile features and strong performance as the liquid version:
 - Simplify your reaction setup with a single-tube master mix format
 - Increase sensitivity of your RT-qPCR, as 4X concentration allows for more sample input
 - Maximize your throughput by multiplexing up to 5 targets
 - Luna WarmStart® RT paired with Hot Start *Taq* increases reaction specificity and robustness, allowing for room temperature setup (up to 24 hours)
 - Reduce risk of carryover contamination, with UDG and dUTP included in the mix
 - Eliminate pipetting errors with non-interfering, visible blue tracking dye
- Developed in collaboration with Fluorogenics™ Limited, a wholly owned subsidiary of New England Biolabs, Inc.®



LyoPrime Luna enables robust multiplexing



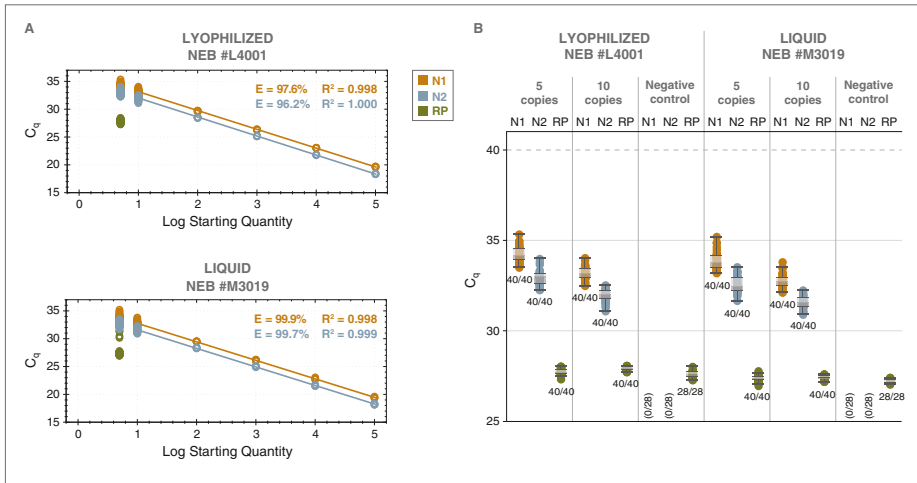
Amplification standard curves and efficiencies for each of the 5 human targets are shown. Reactions (20 μ l) included primers and probes at 200 nM each, and followed the product recommended cycling conditions. All five targets were detected linearly in the multiplex reactions with strong efficiency and R² values.



LyoPrime Luna One-Step RT-qPCR Mix with UDG

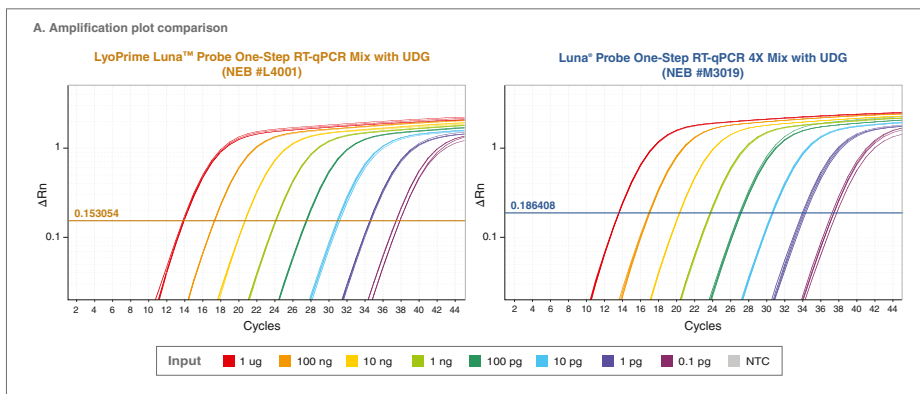


Lyophilized and liquid Luna reagents demonstrate comparable, sensitive detection of SARS-CoV-2 viral RNA



Multiplex RT-qPCR was performed using primers and probes from the Luna SARS-CoV-2 RT-qPCR Multiplex Assay Kit (NEB #E3019) targeting 2019-nCoV_N1 (N1, HEX™), 2019-nCoV_N2 (N2, FAM™) and human RNase P (RP, Cys™), run on a Bio-Rad CFX384™ real-time instrument. Reactions (5 μl) included primers at 400 nM each and probes at 200 nM each, and followed the product recommended cycling conditions. Performance was evaluated using Synthetic Twist SARS-CoV-2 RNA Control 2 diluted in 5 ng/μl human Jurkat total RNA. The Luna and LyoPrime Luna RT-qPCR Mixes both exhibited linear quantitation (standard curves of 100,000 to 10 copies SARS-CoV-2 RNA, left) and sensitive detection (100% detection of N1 and N2 with 40 replicates at 5 and 10 copies SARS-CoV-2 RNA; no false positive detection with 28 negative control replicates). Similar results were obtained for 20 μl reactions in 96-well format.

Lyophilized and liquid Luna RT-qPCR mixes demonstrate equivalent strong performance



RT-qPCR targeting human β-actin was performed using either the LyoPrime Luna Probe One-Step RT-qPCR Mix with UDG (NEB #L4001) or Luna Probe One-Step 4X Mix with UDG (NEB #M3019) over an 8-log range of input template concentrations (1 μg – 0.1 pg Jurkat total RNA) with 4 replicates at each concentration, run on an ABI QuantStudio® 6 Flex real-time instrument. Reactions (20 μl) included primers at 400 nM each and probe at 200 nM, and followed the product recommended cycling conditions.

For more details, visit www.neb.com/L4001

Ordering Information

PRODUCT	NEB #	SIZE
LyoPrime Luna Probe One-Step RT-qPCR Mix with UDG	L4001S	120 reactions
COMPANION PRODUCTS		
Nuclease-free Water	B1500S/L	25/100 ml
Luna Probe One-Step RT-qPCR 4X Mix with UDG	M3019S/L/X/E	200/500/1000/2000 rxns

To learn more about lyophilized reagents from NEB, visit www.neb.com/LyoPrime

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