

New England Biolabs Certificate of Analysis

Product Name: Control LAMP Primer Mix (rActin)
Catalog Number: S0164S
Concentration: 10 X Concentrate
Packaging Lot Number: 10140415
Expiration Date: 04/2023
Storage Temperature: -20°C
Specification Version: PS-S0164S v1.0
Composition (1X): Proprietary

| Control LAMP Primer Mix (rActin) Component List | | | |
|---|---|------------|----------------------|
| NEB Part Number | Component Description | Lot Number | Individual QC Result |
| S0164SD | S0164S - Data Card | 10140416 | Pass |
| S0164AVIAL | Internal Control LAMP Primer Mix (rActin) | 10120751 | Pass |

| Assay Name/Specification | Lot # 10140415 |
|--|----------------|
| Non-Specific DNase Activity (16 Hour) A 50 µl reaction in NEBuffer 2 containing 1 µg of T3 or T7 DNA in addition to a reaction containing Lambda-HindIII DNA and a minimum of 5 µl of Control LAMP Primer Mix (rActin) incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis. | Pass |
| Phosphatase Activity (pNPP) A 200 µl reaction in 1M Diethanolamine, pH 9.8, 0.5 mM MgCl ₂ containing 2.5 mM p-Nitrophenyl Phosphate (pNPP) and a minimum of 20 µl of Control LAMP Primer Mix (rActin) incubated for 4 hours at 37°C yields <0.0001 unit of alkaline phosphatase activity as determined by spectrophotometric analysis. | Pass |
| 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 Control LAMP Primer Mix (rActin) is incubated at 37°C. After incubation for 16 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection. | Pass |
| Functional Testing (LAMP primers) A 25 µl reaction in 1X WarmStart® LAMP Master Mix with UDG in the presence of LAMP Fluorescent Dye and 1X Control LAMP Primer Mix (rActin) containing 10 ng human RNA | Pass |

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|--|--------------------|
| <p>results in a threshold time of ≤ 20 minutes as determined by fluorescent detection. Reactions that lack human RNA template remain negative over a 30 minute incubation at 65°C.</p> <p>Endonuclease Activity (Nicking) A 50 μl reaction in NEBuffer 2 containing 1 μg of supercoiled PhiX174 DNA and a minimum of 5 μl of Control LAMP Primer Mix (rActin) incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.</p> | <p>Pass</p> |

This product has been tested and shown to be in compliance with all specifications.

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Christie Vazquez
Production Scientist
15 Feb 2022



Josh Hersey
Packaging Quality Control Inspector
15 Feb 2022