

## New England Biolabs Certificate of Analysis

**Product Name:** Control LAMP Primer Mix (rActin)  
**Catalog Number:** S0164S  
**Concentration:** 10 X Concentrate  
**Packaging Lot Number:** 10177200  
**Expiration Date:** 08/2024  
**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
S0164AVIAL	Internal Control LAMP Primer Mix (rActin)	10158276	Pass

Assay Name/Specification	Lot # 10177200
<p><b>Endonuclease Activity (Nicking)</b>            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 &lt;10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	Pass
<p><b>Functional Testing (LAMP primers)</b>            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 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>	Pass
<p><b>Non-Specific DNase Activity (16 Hour)</b>            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.</p>	Pass
<p><b>Phosphatase Activity (pNPP)</b>            A 200 µl reaction in 1M Diethanolamine, pH 9.8, 0.5 mM MgCl<sub>2</sub> 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 &lt;0.0001 unit of alkaline phosphatase</p>	Pass

Assay Name/Specification	Lot # 10177200
<p>activity as determined by spectrophotometric analysis.</p> <p><b>RNase Activity (Extended 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 Control LAMP Primer Mix (rActin) is incubated at 37°C. After incubation for 16 hours, &gt;90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.</p>	<p><b>Pass</b></p>

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

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12 Aug 2022



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Packaging Quality Control Inspector  
23 May 2023