

## New England Biolabs Certificate of Analysis

**Product Name:** LAMP Fluorescent Dye  
**Catalog Number:** B1700S  
**Concentration:** 50 X Concentrate  
**Packaging Lot Number:** 10184937  
**Expiration Date:** 09/2024  
**Storage Temperature:** -20°C  
**Specification Version:** PS-B1700S v1.0  
**Composition (1X):** Proprietary

| LAMP Fluorescent Dye Component List |                       |            |                      |
|-------------------------------------|-----------------------|------------|----------------------|
| NEB Part Number                     | Component Description | Lot Number | Individual QC Result |
| B1700SVIAL                          | LAMP Fluorescent Dye  | 10163178   | Pass                 |

| Assay Name/Specification                                                                                                                                                                                                                                                                                                                                           | Lot # 10184937 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <b>Endonuclease Activity (Nicking)</b><br>A 50 µl reaction in NEBuffer 2 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 2 µl of LAMP Fluorescent Dye incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.                                                                        | <b>Pass</b>    |
| <b>Functional Testing (LAMP, Master Mix)</b><br>A 25 µl reaction with 1X WarmStart® LAMP Master Mix in the presence of 1X LAMP Primers containing 10 ng genomic DNA and 1X LAMP fluorescent dye results in a threshold time of ≤ 20 minutes as determined by fluorescent detection.                                                                                | <b>Pass</b>    |
| <b>Functional Testing (RT-LAMP, Master Mix)</b><br>A 25 µl reaction with 1X WarmStart® LAMP Master Mix in the presence of 1X LAMP Primers containing 10 ng of genomic RNA and 1X LAMP fluorescent dye results in a threshold time of ≤ 20 minutes as determined by fluorescent detection.                                                                          | <b>Pass</b>    |
| <b>Non-Specific DNase Activity (16 Hour)</b><br>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 2 µl of LAMP Fluorescent Dye incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis. | <b>Pass</b>    |
| <b>RNase Activity Assay (4 Hour Digestion)</b><br>A 10 µl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA                                                                                                                                                                                                                                | <b>Pass</b>    |

| Assay Name/Specification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Lot # 10184937     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| <p>and a minimum of 1 µl of LAMP Fluorescent Dye is incubated at 37°C. After incubation for 4 hours, &gt;90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.</p> <p><b>qPCR DNA Contamination (E. coli Genomic)</b><br/>A minimum of 1 µl of LAMP Fluorescent Dye 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.</p> | <p><b>Pass</b></p> |

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

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit [www.neb.com/trademarks](http://www.neb.com/trademarks) for additional information.



Trinh Nguyen  
Production Scientist  
15 Sep 2022



Josh Hersey  
Packaging Quality Control Inspector  
22 Jun 2023