Product Name: LAMP Fluorescent Dye
Catalog Number: B1700S
Concentration: 50 X Concentrate
Packaging Lot Number: 10143232
Expiration Date: 07/2023
Storage Temperature: -20°C
Specification Version: PS-B1700S v1.0
Composition (1X): Proprietary

### LAMP Fluorescent Dye Component List

<table>
<thead>
<tr>
<th>NEB Part Number</th>
<th>Component Description</th>
<th>Lot Number</th>
<th>Individual QC Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1700SVIAL</td>
<td>LAMP Fluorescent Dye</td>
<td>10118044</td>
<td>Pass</td>
</tr>
</tbody>
</table>

### Assay Name/Specification

**RNase Activity Assay (4 Hour 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 LAMP Fluorescent Dye 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.

**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 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.

**Endonuclease Activity (Nicking)**
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.

**Functional Testing (LAMP, Master Mix)**
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.

**Functional Testing (RT-LAMP, Master Mix)**
Pass
<table>
<thead>
<tr>
<th>Assay Name/Specification</th>
<th>Lot # 10143232</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
</tr>
</tbody>
</table>

**qPCR DNA Contamination (E. coli Genomic)**

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.

| Pass |

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

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________________________________________
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09 Mar 2022

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09 Mar 2022