

## New England Biolabs Certificate of Analysis

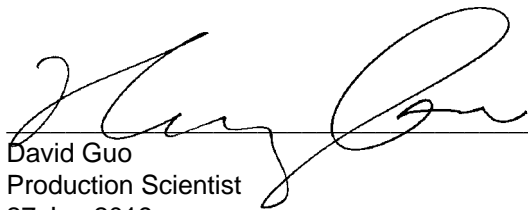
Product Name: WarmStart® Colorimetric LAMP 2X Master Mix (DNA & RNA)  
 Catalog Number: M1800L  
 Concentration: 2 X Concentrate  
 Lot Number: 10048419  
 Expiration Date: 06/2020  
 Storage Temperature: -20°C  
 Specification Version: PS-M1800S/L v2.0  
 Composition (1X): Proprietary

WarmStart® Colorimetric LAMP 2X Master Mix (DNA & RNA) Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M1800SVIAL	WarmStart® Colorimetric LAMP 2X Master Mix (DNA & RNA)	10047041	Pass

Assay Name/Specification	Lot # 10048419
<p><b>Non-Specific DNase Activity (16 hour, Buffer)</b>            A 50 µl reaction in 1X WarmStart® Colorimetric LAMP Master Mix (DNA &amp; RNA) containing 1 µg of T3 DNA in addition to a reaction containing Lambda-HindIII DNA 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>qPCR DNA Contamination (E. coli Genomic)</b>            A minimum of 1 µl of WarmStart® Colorimetric LAMP Master Mix (DNA &amp; RNA) 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>	Pass
<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 WarmStart® Colorimetric LAMP 2X Master Mix (DNA &amp; RNA) 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>	Pass
<p><b>Functional Testing (RT-LAMP, Master Mix)</b>            A 25 µl reaction with 1X WarmStart® Colorimetric LAMP Master Mix (DNA &amp; RNA) 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</p>	Pass

Assay Name/Specification	Lot # 10048419
<p>detection.</p> <p><b>Functional Testing (LAMP, Master Mix)</b> A 25 µl reaction with 1X WarmStart® Colorimetric LAMP Master Mix (DNA &amp; RNA) 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.</p>	<p><b>Pass</b></p>

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




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David Guo  
Production Scientist  
27 Jun 2019




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Michael Tonello  
Packaging Quality Control Inspector  
01 Jul 2019