

## New England Biolabs Certificate of Analysis

Product Name: NEBNext<sup>®</sup> High-Fidelity 2X PCR Master Mix  
 Catalog Number: M0541S  
 Concentration: 2 X Concentrate  
 Packaging Lot Number: 10054364  
 Expiration Date: 02/2021  
 Storage Temperature: -20°C  
 Specification Version: PS-M0541S/L v1.0  
 Composition (1X): Proprietary

NEBNext <sup>®</sup> High-Fidelity 2X PCR Master Mix Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0541SVIAL	NEBNext <sup>®</sup> High-Fidelity 2X PCR Master Mix	10054365	Pass

Assay Name/Specification	Lot # 10054364
<p><b>Non-Specific DNase Activity (16 hour, Master Mix)</b>            A 50 µl reaction in 1X NEBNext<sup>®</sup> High-Fidelity 2X PCR Master Mix 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>PCR Amplification (Master Mix)</b>            A 50 µl reaction containing 0.5 µM primers with 20 ng human genomic DNA and 1X NEBNext<sup>®</sup> High-Fidelity 2X PCR Master Mix for 30 cycles of PCR amplification results in the expected 737 bp product.</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 NEBNext<sup>®</sup> High-Fidelity 2X PCR Master Mix incubated for 4 hours at 37°C yields &lt;0.00001 unit of alkaline phosphatase activity as determined by spectrophotometric analysis.</p>	Pass

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

*Melissa Arn*

Melissa Arn  
Production Scientist  
21 Oct 2019

*Jay Minichiello*

Jay Minichiello  
Packaging Quality Control Inspector  
20 Dec 2019