

## New England Biolabs Certificate of Analysis

Product Name: NEBNext<sup>®</sup> High-Fidelity 2X PCR Master Mix  
 Catalog Number: M0541L  
 Concentration: 2 X Concentrate  
 Packaging Lot Number: 10193449  
 Expiration Date: 09/2024  
 Storage Temperature: -20°C  
 Specification Version: PS-M0541S/L v2.0  
 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	10193450	Pass

Assay Name/Specification	Lot # 10193449
<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 or T7 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.

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.

*Christine Sumner*

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Christine Sumner  
Production Scientist  
12 Jul 2023

*Michael Tonello*

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Michael Tonello  
Packaging Quality Control Inspector  
20 Jul 2023