

## New England Biolabs Certificate of Analysis

**Product Name:** NEBNext<sup>®</sup> High-Fidelity 2X PCR Master Mix  
**Catalog Number:** M0541S  
**Concentration:** 2 X Concentrate  
**Lot Number:** 10050672  
**Expiration Date:** 09/2020  
**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	10041218	Pass

Assay Name/Specification	Lot # 10050672
<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 <0.00001 unit of alkaline phosphatase activity as determined by spectrophotometric analysis.	Pass
<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.	Pass
<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.	Pass

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

*Christine Sumner*

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Christine Sumner  
Production Scientist  
02 Aug 2019

*Jay Minichiello*

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Jay Minichiello  
Packaging Quality Control Inspector  
02 Aug 2019