

## New England Biolabs Certificate of Analysis

**Product Name:** NEBNext® High-Fidelity 2X PCR Master Mix  
**Catalog Number:** M0541S  
**Concentration:** 2 X Concentrate  
**Packaging Lot Number:** 10257782  
**Expiration Date:** 08/2025  
**Storage Temperature:** -20°C  
**Specification Version:** PS-M0541S/L v2.0  
**Composition (1X):** Proprietary

NEBNext® High-Fidelity 2X PCR Master Mix Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0541SVIAL	NEBNext® High-Fidelity 2X PCR Master Mix	10257783	Pass

Assay Name/Specification	Lot # 10257782
<b>Non-Specific DNase Activity (16 hour, Master Mix)</b> A 50 µl reaction in 1X NEBNext® 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.	<b>Pass</b>
<b>PCR Amplification (Master Mix)</b> A 50 µl reaction containing 0.5 µM primers with 20 ng human genomic DNA and 1X NEBNext® High-Fidelity 2X PCR Master Mix for 30 cycles of PCR amplification results in the expected 737 bp product.	<b>Pass</b>
<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® 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.	<b>Pass</b>

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  
22 Oct 2024

*Michael Tonello*

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Michael Tonello  
Packaging Quality Control Inspector  
22 Oct 2024