

## New England Biolabs Certificate of Analysis

Product Name: NEBNext<sup>®</sup> Ultra<sup>™</sup> II Q5<sup>®</sup> Master Mix  
 Catalog Number: M0544X  
 Concentration: 2 X Concentrate  
 Packaging Lot Number: 10177382  
 Expiration Date: 05/2024  
 Storage Temperature: -20°C  
 Specification Version: PS-M0544S/L/X v3.0

NEBNext <sup>®</sup> Ultra <sup>™</sup> II Q5 <sup>®</sup> Master Mix Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0544XVIAL	NEBNext <sup>®</sup> Ultra <sup>™</sup> II Q5 <sup>®</sup> Master Mix	10177383	Pass

Assay Name/Specification	Lot # 10177382
<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> Ultra<sup>™</sup> II Q5<sup>®</sup> Master Mix incubated for 4 hours at 37°C yields &lt;0.0001 unit of alkaline phosphatase activity as determined by spectrophotometric analysis.</p>	Pass
<p><b>Functional Testing (Multiplex PCR, Bead Inhibition)</b>            A 50 µl reaction in 1X NEBNext<sup>®</sup> Ultra<sup>™</sup> II Q5<sup>®</sup> Master Mix and 0.5 µM 3-plex primer mix containing 20 ng Human Genomic DNA for 30 cycles of PCR amplification results in the expected three amplicons and no inhibition of amplification in the presence of the beads.</p>	Pass
<p><b>Non-Specific DNase Activity (16 hour, Buffer)</b>            A 50 µl reaction in 1X NEBNext Ultra II Q5 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

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  
23 Jan 2023

*Michael Tonello*

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Michael Tonello  
Packaging Quality Control Inspector  
30 Jan 2023