

## New England Biolabs Certificate of Analysis

**Product Name:** NEBNext<sup>®</sup> Ultra<sup>™</sup> II Q5<sup>®</sup> Master Mix  
**Catalog Number:** M0544G  
**Concentration:** 50 U/ml  
**Packaging Lot Number:** 10170945  
**Expiration Date:** 04/2024  
**Storage Temperature:** -20°C  
**Specification Version:** PS-M0544G v1.0

NEBNext <sup>®</sup> Ultra <sup>™</sup> II Q5 <sup>®</sup> Master Mix Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0544GVIAL	NEBNext <sup>®</sup> Ultra <sup>™</sup> II Q5 <sup>®</sup> Master Mix	10170946	Pass

Assay Name/Specification	Lot # 10170945
<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
<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>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

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  
07 Feb 2023

*Michael Tonello*

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Michael Tonello  
Packaging Quality Control Inspector  
07 Feb 2023