Product Name: NEBNext® Ultra™ II Q5® Master Mix
Catalog Number: M0544L
Packaging Lot Number: 10096408
Expiration Date: 06/2022
Storage Temperature: -20°C
Specification Version: PS-M0544S/L v2.0

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<th>Component Description</th>
<th>Lot Number</th>
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<td>NEBNext® Ultra™ II Q5® Master Mix</td>
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**Assay Name/Specification**

**Phosphatase Activity (pNPP)**
A 200 µl reaction in 1M Diethanolamine, pH 9.8, 0.5 mM MgCl2 containing 2.5 mM p-Nitrophenyl Phosphate (pNPP) and a minimum of 20 µl of NEBNext® Ultra™ II Q5® Master Mix incubated for 4 hours at 37°C yields <0.0001 unit of alkaline phosphatase activity as determined by spectrophotometric analysis.

**Pass**

**Functional Testing (Multiplex PCR, Bead Inhibition)**
A 50 µl reaction in 1X NEBNext® Ultra™ II Q5® 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.

**Pass**

**Non-Specific DNase Activity (16 hour, Buffer)**
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.

**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  
Production Scientist  
05 Jan 2021

Michael Tonello  
Packaging Quality Control Inspector  
05 Jan 2021