Product Name: NEBNext® Ultra™ II Q5® Master Mix
Catalog Number: M0544S
Packaging Lot Number: 10108373
Expiration Date: 09/2022
Storage Temperature: -20°C
Specification Version: PS-M0544S/L v2.0

**NEBNext® Ultra™ II Q5® Master Mix Component List**

<table>
<thead>
<tr>
<th>NEB Part Number</th>
<th>Component Description</th>
<th>Lot Number</th>
<th>Individual QC Result</th>
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<tbody>
<tr>
<td>M0544SVIAL</td>
<td>NEBNext® Ultra™ II Q5® Master Mix</td>
<td>10107221</td>
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</table>

**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.

**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.

**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.

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

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