Product Name: NEBNext® Ultra™ II Q5® Master Mix
Catalog #: M0544S/L/X
Shelf Life: 18 months
Storage Temp: -20°C
Specification Version: PS-M0544S/L/X v3.0
Effective Date: 15 Jun 2021

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.

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.

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.

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit www.neb.com/trademarks for additional information.

Derek Robinson
Director, Quality Control

Date 15 Jun 2021

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