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New England Biolabs Certificate of Analysis

Product Name: NEBNext® Q5® Hot Start HiFi PCR Master Mix

Catalog Number: M0543L
Packaging Lot Number: 10178347
Expiration Date: 06/2024
Storage Temperature: -20°C

Specification Version: PS-M0543S/L v2.0

NEBNext® Q5® Hot Start HiFi PCR Master Mix Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0543SVIAL	NEBNext® Q5® Hot Start HiFi PCR Master Mix	10161278	Pass

Assay Name/Specification	Lot # 10178347
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® Q5® Hot Start HiFi	Pass
PCR Master Mix incubated for 4 hours at 37°C yields <0.0001 unit of alkaline phosphatase activity as determined by spectrophotometric analysis.	
Functional Testing (Multiplex PCR, Bead Inhibition) A 50 μl reaction in 1X NEBNext® Q5® Hot Start HiFi PCR 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, Master Mix) A 50 µl reaction in 1X NEBNext® Q5® Hot Start HiFi PCR 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	Pass
determined by agarose gel electrophoresis.	

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

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Packaging Quality Control Inspector

23 Jan 2023

