

## New England Biolabs Certificate of Analysis

Product Name: NEBNext® Q5U™ Master Mix  
 Catalog Number: M0597S  
 Concentration: 2 X Concentrate  
 Packaging Lot Number: 10152345  
 Expiration Date: 03/2023  
 Storage Temperature: -20°C  
 Specification Version: PS-M0597S/L v1.0  
 Composition (1X): Proprietary

NEBNext® Q5U™ Master Mix Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0597SVIAL	NEBNext® Q5U™ Master Mix	10142156	Pass

Assay Name/Specification	Lot # 10152345
<p><b>qPCR DNA Contamination (E. coli Genomic)</b>            A minimum of 1 µl of NEBNext® Q5U™ Master Mix is screened for the presence of E. coli genomic DNA using SYBR® Green qPCR with primers specific for the E. coli 16S rRNA locus. Results are quantified using a standard curve generated from purified E. coli genomic DNA. The measured level of E. coli genomic DNA contamination is ≤ 1 E. coli genome.</p>	Pass
<p><b>RNase Activity (Extended Digestion)</b>            A 10 µl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 µl of NEBNext® Q5U™ Master Mix is incubated at 37°C. After incubation for 16 hours, &gt;90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.</p>	Pass
<p><b>PCR Amplification (dU Bypass)</b>            A 25 µl reaction in 1X NEBNext® Q5U™ Master Mix with 10 ng of genomic DNA and 0.5 µM primers containing dU residues for 30 cycles of PCR results in the expected 720 bp product.</p>	Pass
<p><b>Non-Specific DNase Activity (16 hour, Buffer)</b>            A 50 µl reaction in 1X NEBNext® Q5U™ 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

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

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Christine Sumner  
Production Scientist  
18 May 2022



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Michael Tonello  
Packaging Quality Control Inspector  
18 May 2022