

## New England Biolabs Certificate of Analysis

**Product Name:** NEBNext® Q5U™ Master Mix  
**Catalog Number:** M0597S  
**Concentration:** 2 X Concentrate  
**Packaging Lot Number:** 10076200  
**Expiration Date:** 02/2021  
**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	10068291	Pass

Assay Name/Specification	Lot # 10076200
<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>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>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  
09 Jun 2020



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Josh Hersey  
Packaging Quality Control Inspector  
09 Jun 2020