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## New England Biolabs Certificate of Analysis

Product Name: NEBNext® Q5U™ Master Mix

Catalog Number: M0597L

Concentration: 2 X Concentrate

Packaging Lot Number: 10107268
Expiration Date: 02/2022
Storage Temperature: -20°C

Specification Version: PS-M0597S/L v1.0

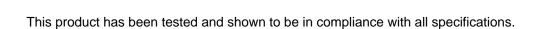
Composition (1X): Proprietary

NEBNext® Q5U™ Master Mix Component List				
<b>NEB Part Number</b>	Component Description	Lot Number	Individual QC Result	
M0597SVIAL	NEBNext® Q5U™ Master Mix	10096158	Pass	

Assay Name/Specification	Lot # 10107268
Non-Specific DNase Activity (16 hour, Buffer) 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.	Pass
PCR Amplification (dU Bypass) 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.	Pass
<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.	Pass
RNase Activity (Extended Digestion) 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, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.	Pass



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**Christine Sumner Production Scientist** 21 Apr 2021

Packaging Quality Control Inspector

21 Apr 2021

Michael Tonello