

New England Biolabs Certificate of Analysis

Product Name: NEBNext® Q5U™ Master Mix
 Catalog Number: M0597S
 Concentration: 2 X Concentrate
 Packaging Lot Number: 10109692
 Expiration Date: 02/2022
 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	10096156	Pass

Assay Name/Specification	Lot # 10109692
<p>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.</p>	Pass
<p>qPCR DNA Contamination (E. coli Genomic) 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>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.</p>	Pass
<p>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.</p>	Pass

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

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.



Christine Sumner
Production Scientist
10 May 2021



Michael Tonello
Packaging Quality Control Inspector
10 May 2021