

## New England Biolabs Certificate of Analysis

Product Name: *NEBuilder<sup>®</sup> HiFi DNA Assembly Master Mix*  
 Catalog Number: *E2621S*  
 Lot Number: *10054200*  
 Expiration Date: *06/2020*  
 Storage Temperature: *-20°C*  
 Specification Version: *PS-E2621S/X/L v1.0*

NEBuilder <sup>®</sup> HiFi DNA Assembly Master Mix Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
N2611AVIAL	NEBuilder <sup>®</sup> Positive Control	10043300	Pass
M5520AVIAL	NEBuilder <sup>®</sup> High-Fidelity Master Mix	10043296	Pass

Assay Name/Specification	Lot # 10054200
<p><b>* Individual Product Component Note</b>            Standard Quality Control Tests are performed for each component included in NEBuilder<sup>®</sup> HiFi DNA Assembly Master Mix and meet the designated specifications.</p> <p><b>Functional Testing (NEBuilder<sup>®</sup> HiFi DNA Assembly)</b>            10 µl of 2X NEBuilder<sup>®</sup> HiFi DNA Assembly Master Mix was incubated with 0.05 pmol each of 6 DNA fragments (4 fragments of 1,000 bp, one fragment of 1,152 bp with 80 bp overlap, and a vector of 3,373 bp with a 20 bp overlap) in a final volume of 20 µl at 50°C for 60 minutes. NEB<sup>®</sup> 5-alpha Competent E. coli (High Efficiency) were transformed with 2 µl of the assembled products. Successfully assembled fragments produce an intact lacZ gene in the pACYC184 vector, and yield blue colonies on an IPTG/Xgal/Chloramphenicol plate when incubated overnight at 37°C after transformation. Greater than 100 blue colonies were observed when 1/10 of the outgrowth (500 µl) was spread on a plate.</p>	<p>Pass</p> <p>Pass</p>

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

*Cathy Shea*

Cathy Shea  
Production Scientist  
13 Jun 2019

*Josh Hersey*

Josh Hersey  
Packaging Quality Control Inspector  
01 Oct 2019