

## New England Biolabs Certificate of Analysis

Product Name: *NEBuilder<sup>®</sup> HiFi DNA Assembly Master Mix*  
 Catalog Number: *E2621L*  
 Packaging Lot Number: *10178642*  
 Expiration Date: *07/2024*  
 Storage Temperature: *-20°C*  
 Specification Version: *PS-E2621S/X/L v2.0*

| 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         | 10157948   | Pass                 |
| M5520AAVIAL  | NEBuilder <sup>®</sup> High-Fidelity Master Mix | 10173992   | Pass                 |

| Assay Name/Specification   | Lot # 10178642          |
|--|-------------------------|
| <p><b>* Individual Product Component Note</b><br/>           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><br/>           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.

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20 Jan 2023



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