

## New England Biolabs Certificate of Analysis

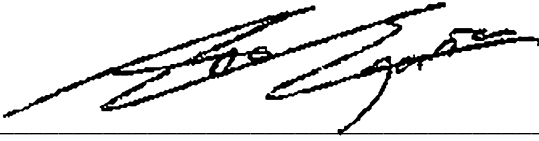
Product Name: *NEBuilder<sup>®</sup> HiFi DNA Assembly Cloning Kit*  
 Catalog Number: *E5520S*  
 Lot Number: *10014294*  
 Expiration Date: *05/2019*  
 Storage Temperature: *Multi-temperature\**  
 Specification Version: *PS-E5520S v1.0*

\* This product contains components with different storage temperature requirements. Please reference the applicable product specification document(s) on the Quality and Safety tab located on the product page of [www.neb.com](http://www.neb.com).

| NEBuilder <sup>®</sup> HiFi DNA Assembly Cloning Kit Component List |  |            |                      |
|---|--|------------|----------------------|
| NEB Part Number   | Component Description  | Lot Number | Individual QC Result |
| N3041AVIAL  | pUC19 Vector   | 10010689   | Pass                 |
| N2611AVIAL  | Gibson Assembly <sup>®</sup> Positive Control                | 0171802    | Pass                 |
| M5520AVIAL  | NEBuilder <sup>®</sup> High-Fidelity Master Mix              | 10009010   | Pass                 |
| C2987HVIAL  | NEB <sup>®</sup> 5-alpha Competent E. coli (High Efficiency) | 10009119   | Pass                 |
| B9020SVIAL  | SOC Outgrowth Medium   | 5651804    | Pass                 |

| Assay Name/Specification   | Lot # 10014294          |
|--|-------------------------|
| <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 Cloning Kit 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 Cloning Kit 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.



Ana Egana  
Production Scientist  
27 Jun 2018



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27 Jun 2018