

## New England Biolabs Certificate of Analysis

Product Name: *NEBuilder<sup>®</sup> HiFi DNA Assembly Cloning Kit*  
 Catalog Number: *E5520S*  
 Packaging Lot Number: *10175416*  
 Expiration Date: *12/2023*  
 Storage Temperature: *Multi-temperature\**  
 Specification Version: *PS-E5520S v2.0*

\* 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).

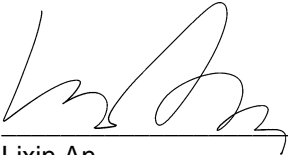
NEBuilder <sup>®</sup> HiFi DNA Assembly Cloning Kit Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
N3041AVIAL	pUC19 Vector	10173306	Pass
N2611AVIAL	NEBuilder <sup>®</sup> Positive Control	10134428	Pass
M5520AVIAL	NEBuilder <sup>®</sup> High-Fidelity Master Mix	10156826	Pass
C2987HVIAL	NEB <sup>®</sup> 5-alpha Competent E. coli (High Efficiency)	10167717	Pass
B9020SVIAL	SOC Outgrowth Medium	10166763	Pass

Assay Name/Specification	Lot # 10175416
<p><b>* Individual Product Component Note</b>            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>            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.

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit

[www.neb.com/trademarks](http://www.neb.com/trademarks) for additional information.



---

Lixin An  
Production Scientist  
28 Oct 2022



---

Nick Privitera  
Packaging Quality Control Inspector  
30 Dec 2022