

## New England Biolabs Certificate of Analysis

**Product Name:** NEBuilder® HiFi DNA Assembly Cloning Kit  
**Catalog Number:** E5520S  
**Packaging Lot Number:** 10238687  
**Expiration Date:** 05/2025  
**Storage Temperature:** Multi-temperature\*  
**Specification Version:** PS-E5520S v3.0

\* 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® HiFi DNA Assembly Cloning Kit Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
N3041AVIAL	pUC19 Vector	10226553	Pass
N2611AVIAL	NEBuilder® Positive Control	10233980	Pass
M5520AVIAL	NEBuilder® High-Fidelity Master Mix	10238675	Pass
C2987HVIAL	NEB® 5-alpha Competent E. coli (High Efficiency)	10214174	Pass
B9020SVIAL	SOC Outgrowth Medium	10222578	Pass

Assay Name/Specification	Lot # 10238687
<p><b>* Individual Product Component Note</b> Standard Quality Control Tests are performed for each component included in NEBuilder® HiFi DNA Assembly Cloning Kit and meet the designated specifications.</p> <p><b>Functional Testing (NEBuilder® HiFi DNA Assembly)</b> 10 µl of 2X NEBuilder® 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® 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

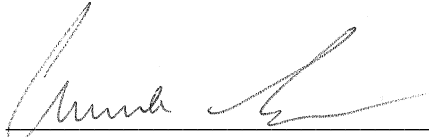


[www.neb.com/trademarks](http://www.neb.com/trademarks) for additional information.



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26 Jan 2024



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15 May 2024