240 County Road Ipswich, MA 01938-2723 Tel 978-927-5054 Fax 978-921-1350 www.neb.com info@neb.com

New England Biolabs Certificate of Analysis

Product Name: NEBuilder® HiFi DNA Assembly Cloning Kit

Catalog Number: E5520S
Packaging Lot Number: 10090951
Expiration Date: 10/2021

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.

NEBuilder® HiFi DNA Assembly Cloning Kit Component List				
NEB Part Number	Component Description	Lot Number	Individual QC Result	
N3041AVIAL	pUC19 Vector	10088620	Pass	
N2611AVIAL	NEBuilder® Positive Control	10088942	Pass	
M5520AVIAL	NEBuilder® High-Fidelity Master Mix	10088947	Pass	
C2987HVIAL	NEB® 5-alpha Competent E. coli (High Efficiency)	10085592	Pass	
B9020SVIAL	SOC Outgrowth Medium	10085005	Pass	

Assay Name/Specification	Lot # 10090951
Functional Testing (NEBuilder® HiFi DNA Assembly) 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.	Pass
* Individual Product Component Note	Pass
Standard Quality Control Tests are performed for each component included in NEBuilder® HiFi DNA Assembly Cloning Kit and meet the designated specifications.	

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



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www.neb.com/trademarks for additional information.

Ana Egana Production Scientist

16 Dec 2020

Corey Rabeau

Packaging Quality Control Inspector

16 Dec 2020



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