

New England Biolabs Product Specification

Product Name: NEBuilder[®] HiFi DNA Assembly Cloning Kit
Catalog #: E5520S
Kit Components: NEBuilder[®] HiFi DNA Assembly Master Mix (M5520) — Store at -20°C
NEBuilder[®] Positive Control (N2611) — Store at -20°C
NEB[®] 5-alpha Competent *E. coli* (High Efficiency) (C2987) — Store at -80°C
SOC Outgrowth Medium (B9020) — Store at 4°C
pUC19 Vector (N3041) — Store at -20°C

Shelf Life: 12 months
Storage Temp: Multi-temperature
Specification Version: PS-E5520S v2.0
Effective Date: 11 Jul 2018

Assay Name/Specification (minimum release criteria)

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.

* **Individual Product Component Note** - Standard Quality Control Tests are performed for each component included in NEBuilder[®] HiFi DNA Assembly Cloning Kit and meet the designated specifications.



Date 11 Jul 2018

Derek Robinson
Director of Quality Control

