

## New England Biolabs Product Specification

*Product Name:* Gibson Assembly<sup>®</sup> Cloning Kit  
*Catalog #:* E5510S  
*Kit Components:* Gibson Assembly<sup>®</sup> Master Mix (M5510) — Store at -20°C  
NEBuilder<sup>®</sup> Positive Control (N2611) — Store at -20°C  
NEB<sup>®</sup> 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-E5510S v1.0  
*Effective Date:* 09 Apr 2018

### Assay Name/Specification (minimum release criteria)

**Functional Testing (Gibson Assembly)** - A 20 µl reaction containing 10 µl of 2X Gibson Assembly Master Mix and six 0.05 pmol fragments of pUC19 (five 400 bp fragments and one 2,780 bp fragment, each with a 40 bp overlap) is incubated at 50°C for 60 minutes. Transformation of NEB 5-alpha competent *E. coli* cells (NEB #C2987) with 2 µl of the master mix/fragment mixture yields greater than 100 white colonies on an ampicillin plate with IPTG/X-Gal after overnight incubation at 37°C.

\* **Individual Product Component Note** - Standard Quality Control Tests are performed for each component included in Gibson Assembly<sup>®</sup> Cloning Kit and meet the designated specifications.



Date 09 Apr 2018

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Director of Quality Control

