

New England Biolabs Product Specification

Product Name: Gibson Assembly[®] Cloning Kit

Catalog #: E5510S

Kit Components: Gibson Assembly[®] Master Mix (M5510) — 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-E5510S v2.0

Effective Date: 16 Feb 2024

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[®] Cloning Kit and meet the designated specifications.

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Date 16 Feb 2024

Nancy Considine
Quality Approver

