

New England Biolabs Product Specification

Product Name: NEB[®] Golden Gate Assembly Kit (BsaI-HFv2)

Catalog #: E1601S/L

Kit Components: NEB[®] Golden Gate Enzyme Mix (M2616)
pGGA Destination Plasmid (N2615)
T4 DNA Ligase Reaction Buffer (B0202)

Shelf Life: 24 months

Storage Temp: -20°C

Specification Version: PS-E1601S/L v1.0

Effective Date: 15 Oct 2018

Assay Name/Specification (minimum release criteria)

Functional Testing (Golden Gate Assembly) - A 20 µl reaction containing 2 µl of T4 DNA Ligase Reaction Buffer, 75 ng pGGA (Golden Gate destination plasmid, CamR), 75 ng each of 5 plasmids carrying fragments of a gene encoding *lacZ*, and 1 µl NEB[®] Golden Gate Enzyme Mix is incubated for 30 cycles of 37°C for 1 minute, 16°C for 1 minute, and then at 60°C for 5 minutes to linearize any remaining plasmid. Successfully assembled fragments result in *lacZ* gene in the pGGA vector and yield blue colonies on an IPTG/Xgal/Chloramphenicol plate. Transformation of T7 Express Competent *E. coli* (High Efficiency, NEB #C2566) with 2 µl of the assembly reaction yields >250 colonies and >80% blue colonies when 5% of the outgrowth is spread on an IPTG/Xgal/Chloramphenicol plate and incubated overnight at 37°C.

* **Individual Product Component Note** - Standard Quality Control Tests are performed for each component included in NEB[®] Golden Gate Assembly Kit (BsaI-HFv2) and meet the designated specifications.



Date 15 Oct 2018

Derek Robinson
Director of Quality Control

