

New England Biolabs Product Specification

Product Name: NEB[®] Golden Gate Assembly Mix
Catalog #: E1600S
Kit Components: NEB[®] Golden Gate Assembly Mix (M2615)
NEB[®] Golden Gate Buffer (B2615)
pGGA Destination Plasmid (N2615)
Shelf Life: 12 months
Storage Temp: -20°C
Specification Version: PS-E1600S v1.0
Effective Date: 13 Feb 2018

Assay Name/Specification (minimum release criteria)

Functional Testing (Golden Gate Assembly) - A 20 µl reaction containing 2 µl of Golden Gate 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 Assembly Mix is incubated for 30 cycles of 37°C for 1 minute, 16°C for 1 minute, and then at 55°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 IPTC/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 Mix and meet the designated specifications.



Date 13 Feb 2018

Derek Robinson
Director of Quality Control

