

New England Biolabs Product Specification

Product Name: NEBridge[®] Golden Gate Assembly Kit (BsmBI-v2)
Catalog #: E1602S/L
Kit Components: NEBridge[®] Golden Gate Enzyme Mix (BsmBI-v2) (M2617)
pGGaselect Destination Plasmid (N0309)
T4 DNA Ligase Reaction Buffer (B0202)
Shelf Life: 24 months
Storage Temp: -20°C
Specification Version: PS-E1602S/L v3.0
Effective Date: 08 Apr 2022

Assay Name/Specification (minimum release criteria)

Functional Testing (Golden Gate Assembly) - A 20 µl reaction containing 1X T4 DNA Ligase Buffer, 75 ng pGGaselect (Golden Gate destination plasmid, CamR), 75 ng each of 5 plasmids carrying fragments of a gene cassette encoding *lacZ* and 1 µl NEBridge[®] Golden Gate Enzyme Mix (BsmBI-v2) containing T4 DNA Ligase and BsmBI-v2 is incubated for 30 cycles of 42°C for 1 minute, 16°C for 1 minute, then at 60°C for 5 minutes. Successfully assembled fragments result in functional *lacZ* gene expression in pGGaselect 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 NEBridge[®] Golden Gate Assembly Kit (BsmBI-v2) and meet the designated specifications.

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Date 08 Apr 2022

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