

## New England Biolabs Certificate of Analysis

Product Name: NEB<sup>®</sup> Golden Gate Enzyme Kit (Bsal-HF<sup>®</sup>v2)  
 Catalog Number: E1601S  
 Packaging Lot Number: 10054192  
 Expiration Date: 10/2021  
 Storage Temperature: -20°C  
 Specification Version: PS-E1601S/L v1.0

| NEB <sup>®</sup> Golden Gate Enzyme Kit (Bsal-HF <sup>®</sup> v2) Component List |   |            |                      |
|--|---|------------|----------------------|
| NEB Part Number  | Component Description   | Lot Number | Individual QC Result |
| N2615AAVIAL  | pGGA Destination Plasmid  | 10054196   | Pass                 |
| M2616AVIAL   | NEB <sup>®</sup> Golden Gate Enzyme Mix (Bsal-HF <sup>®</sup> v2) | 10054195   | Pass                 |
| B0202AVIAL   | T4 DNA Ligase Reaction Buffer                                     | 10055725   | Pass                 |

| Assay Name/Specification   | Lot # 10054192          |
|--|-------------------------|
| <p><b>* Individual Product Component Note</b><br/>           Standard Quality Control Tests are performed for each component included in NEB<sup>®</sup> Golden Gate Assembly Kit (Bsal-HFv2) and meet the designated specifications.</p> <p><b>Functional Testing (Golden Gate Assembly)</b><br/>           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<sup>®</sup> 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 &gt;250 colonies and &gt;80% blue colonies when 5% of the outgrowth is spread on an IPTG/Xgal/Chloramphenicol plate and incubated overnight at 37°C.</p> | <p>Pass</p> <p>Pass</p> |

This product has been tested and shown to be in compliance with all specifications.

*Cathy Shea*

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Cathy Shea  
Production Scientist  
27 Sep 2019

*Michael Tonello*

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Michael Tonello  
Packaging Quality Control Inspector  
25 Oct 2019