

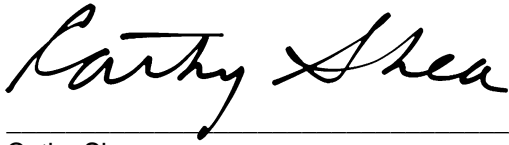
## New England Biolabs Certificate of Analysis

Product Name: NEB® Golden Gate Enzyme Kit (Bsal-HF®v2)  
 Catalog Number: E1601S  
 Lot Number: 10042842  
 Expiration Date: 05/2021  
 Storage Temperature: -20°C  
 Specification Version: PS-E1601S/L v1.0

NEB® Golden Gate Enzyme Kit (Bsal-HF®v2) Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
N2615AAVIAL	pGGA Destination Plasmid	10042846	Pass
M2616AVIAL	NEB® Golden Gate Enzyme Mix (Bsal-HF®v2)	10042845	Pass
B0202AVIAL	T4 DNA Ligase Reaction Buffer	10045191	Pass

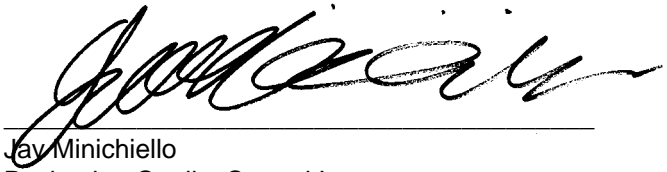
Assay Name/Specification	Lot # 10042842
<p><b>Functional Testing (Golden Gate Assembly)</b>            A 20 µl reaction containing 2 µl of T4 DNA Ligase Reaction Buffer, 75 ng pGGA (Golden Gate destination plasmid, CamR), 75 ng each of 5 plasmids carrying fragments of a gene encoding lacZ, and 1 µl NEB® 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 &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>	Pass
<p><b>* Individual Product Component Note</b>            Standard Quality Control Tests are performed for each component included in NEB® Golden Gate Assembly Kit (Bsal-HFv2) and meet the designated specifications.</p>	Pass

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



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Cathy Shea  
Production Scientist  
10 May 2019



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Jay Minichiello  
Packaging Quality Control Inspector  
31 May 2019