

## New England Biolabs Certificate of Analysis

Product Name: NEB<sup>®</sup> 5-alpha Competent *E. coli* (High Efficiency)  
 Catalog Number: C2987U  
 Lot Number: 10019408  
 Expiration Date: 08/2019  
 Storage Temperature: -80°C  
 Specification Version: PS-C2987U v2.0

NEB <sup>®</sup> 5-alpha Competent <i>E. coli</i> (High Efficiency) Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
N3041AVIAL	pUC19 Vector	10017063	Pass
C2987UVIAL	NEB <sup>®</sup> 5-alpha Competent <i>E. coli</i> (High Efficiency)	10013619	Pass
B9020SVIAL	SOC Outgrowth Medium	10011187	Pass

Assay Name/Specification	Lot # 10019408
<p><b>Antibiotic Sensitivity (Ampicillin)</b>            15 µl of untransformed NEB<sup>®</sup> 5-alpha Competent <i>E. coli</i> (High Efficiency) streaked onto a Rich Broth plate containing Ampicillin will not form colonies after incubation for 16 hours at 37°C.</p>	Pass
<p><b>Antibiotic Sensitivity (Chloramphenicol)</b>            15 µl of untransformed NEB<sup>®</sup> 5-alpha Competent <i>E. coli</i> (High Efficiency) streaked onto a Rich Broth plate containing Chloramphenicol will not form colonies after incubation for 16 hours at 37°C.</p>	Pass
<p><b>Antibiotic Sensitivity (Kanamycin)</b>            15 µl of untransformed NEB<sup>®</sup> 5-alpha Competent <i>E. coli</i> (High Efficiency) streaked onto a Rich Broth plate containing Kanamycin will not form colonies after incubation for 16 hours at 37°C.</p>	Pass
<p><b>Antibiotic Sensitivity (Nitrofurantoin)</b>            15 µl of untransformed NEB<sup>®</sup> 5-alpha Competent <i>E. coli</i> (High Efficiency) streaked onto a Rich Broth plate containing Nitrofurantoin will not form colonies after incubation for 16 hours at 37°C.</p>	Pass
<p><b>Antibiotic Sensitivity (Spectinomycin)</b>            15 µl of untransformed NEB<sup>®</sup> 5-alpha Competent <i>E. coli</i> (High Efficiency) streaked onto a Rich Broth plate containing Spectinomycin will not form colonies after</p>	Pass

Assay Name/Specification	Lot # 10019408
incubation for 16 hours at 37°C.	
<p><b>Antibiotic Sensitivity (Streptomycin)</b> 15 µl of untransformed NEB® 5-alpha Competent E. coli (High Efficiency) streaked onto a Rich Broth plate containing Streptomycin will not form colonies after incubation for 16 hours at 37°C.</p>	<b>Pass</b>
<p><b>Antibiotic Sensitivity (Tetracycline)</b> 15 µl of untransformed NEB® 5-alpha Competent E. coli (High Efficiency) streaked onto a Rich Broth plate containing Tetracycline will not form colonies after incubation for 16 hours at 37°C.</p>	<b>Pass</b>
<p><b>Blue-White Screening (α-complementation, Competent Cells)</b> NEB® 5-alpha Competent E. coli (High Efficiency) were shown to be suitable for blue/white screening by α-complementation of the β-galactosidase gene using pUC19.</p>	<b>Pass</b>
<p><b>Phage Resistance (φ 80)</b> 15 µl of untransformed NEB® 5-alpha Competent E. coli (High Efficiency) streaked onto a Rich Broth plate does not support plaque formation by phage φ 80 after incubation for 16 hours at 37°C.</p>	<b>Pass</b>
<p><b>Transformation Efficiency</b> 1 well of NEB® 5-alpha Competent E. coli (High Efficiency) cells were transformed with 100 pg of pUC19 DNA using the transformation protocol provided. Incubation overnight on LB-Ampicillin plates at 37°C resulted in &gt;1 x 10e9 cfu/µg of DNA.</p>	<b>Pass</b>

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



Lixin An  
Production Scientist  
22 Jun 2018



Nick Privitera  
Packaging Quality Control Inspector  
21 Aug 2018