

## New England Biolabs Certificate of Analysis

Product Name: NEB® 10-beta Competent *E. coli* (High Efficiency)  
 Catalog Number: C3019H  
 Lot Number: 10018935  
 Expiration Date: 08/2019  
 Storage Temperature: -80°C  
 Specification Version: PS-C3019H/I v1.0

NEB® 10-beta Competent <i>E. coli</i> (High Efficiency) Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
N3041AVIAL	pUC19 Vector	10010689	Pass
C3019HVIAL	NEB® 10-beta Competent <i>E. coli</i> (High Efficiency)	10013604	Pass
B9035SVIAL	NEB® 10-beta/Stable Outgrowth Medium	0321806	Pass

Assay Name/Specification	Lot # 10018935
<b>Blue-White Screening (<math>\alpha</math>-complementation, Competent Cells)</b> NEB® 10-beta Competent <i>E. coli</i> (High Efficiency) were shown to be suitable for blue/white screening by $\alpha$ -complementation of the $\beta$ -galactosidase gene using pUC19.	Pass
<b>Phage Resistance (<math>\phi</math> 80)</b> 15 $\mu$ l of untransformed NEB® 10-beta Competent <i>E. coli</i> (High Efficiency) streaked onto a Rich Broth plate does not support plaque formation by phage $\phi$ 80 after incubation for 16 hours at 37°C.	Pass
<b>Transformation Efficiency</b> 50 $\mu$ l of NEB® 10-beta Competent <i>E. coli</i> (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 $>1 \times 10^9$ cfu/ $\mu$ g of DNA.	Pass
<b>Antibiotic Resistance (Streptomycin)</b> 15 $\mu$ l of untransformed NEB® 10-beta Competent <i>E. coli</i> (High Efficiency) streaked onto a Rich Broth plate containing Streptomycin will form colonies after incubation for 16 hours at 37°C.	Pass
<b>Antibiotic Sensitivity (Ampicillin)</b> 15 $\mu$ l of untransformed NEB® 10-beta 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.	Pass

Assay Name/Specification	Lot # 10018935
<p><b>Antibiotic Sensitivity (Chloramphenicol)</b> 15 µl of untransformed NEB® 10-beta Competent E. coli (High Efficiency) streaked onto a Rich Broth plate containing Chloramphenicol will not form colonies after incubation for 16 hours at 37°C.</p>	<b>Pass</b>
<p><b>Antibiotic Sensitivity (Kanamycin)</b> 15 µl of untransformed NEB® 10-beta Competent E. coli (High Efficiency) streaked onto a Rich Broth plate containing Kanamycin will not form colonies after incubation for 16 hours at 37°C.</p>	<b>Pass</b>
<p><b>Antibiotic Sensitivity (Nitrofurantoin)</b> 15 µl of untransformed NEB® 10-beta Competent E. coli (High Efficiency) streaked onto a Rich Broth plate containing Nitrofurantoin will not form colonies after incubation for 16 hours at 37°C.</p>	<b>Pass</b>
<p><b>Antibiotic Sensitivity (Spectinomycin)</b> 15 µl of untransformed NEB® 10-beta Competent E. coli (High Efficiency) streaked onto a Rich Broth plate containing Spectinomycin 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® 10-beta 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>

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



Lixin An  
Production Scientist  
06 Jul 2018



Corey Rabeau  
Packaging Quality Control Inspector  
14 Aug 2018