

## New England Biolabs Certificate of Analysis

Product Name: NEB 10-beta Competent *E. coli* (High Efficiency)  
 Catalog Number: C3019P  
 Packaging Lot Number: 10151447  
 Expiration Date: 05/2023  
 Storage Temperature: -80°C  
 Specification Version: PS-C3019P v1.0

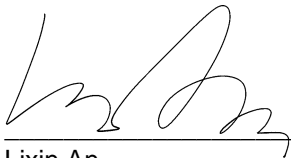
NEB 10-beta Competent <i>E. coli</i> (High Efficiency) Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
N3041AVIAL	pUC19 Vector	10146225	Pass
C3019PVIAL	NEB 10-beta Competent <i>E. coli</i> (High Efficiency)	10135093	Pass
B9035SVIAL	NEB® 10-beta/Stable Outgrowth Medium	10145728	Pass

Assay Name/Specification	Lot # 10151447
<p><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 <math>\alpha</math>-complementation of the <math>\beta</math>-galactosidase gene using pUC19.</p>	Pass
<p><b>Antibiotic Sensitivity (Tetracycline)</b>            15 <math>\mu</math>l of untransformed NEB® 10-beta Competent <i>E. coli</i> (High Efficiency) streaked onto a Rich Broth plate containing Tetracycline will not form colonies after incubation for 16 hours at 37°C.</p>	Pass
<p><b>Antibiotic Sensitivity (Spectinomycin)</b>            15 <math>\mu</math>l of untransformed NEB® 10-beta Competent <i>E. coli</i> (High Efficiency) streaked onto a Rich Broth plate containing Spectinomycin will not form colonies after incubation for 16 hours at 37°C.</p>	Pass
<p><b>Transformation Efficiency</b>            20 <math>\mu</math>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 <math>&gt;1 \times 10^8</math> cfu/<math>\mu</math>g of DNA.</p>	Pass
<p><b>Antibiotic Sensitivity (Nitrofurantoin)</b>            15 <math>\mu</math>l of untransformed NEB® 10-beta 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

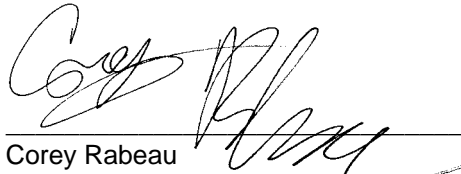
Assay Name/Specification	Lot # 10151447
<p><b>Antibiotic Resistance (Streptomycin)</b> 15 µl of untransformed NEB® 10-beta Competent E. coli (High Efficiency) streaked onto a Rich Broth plate containing Streptomycin will form colonies after incubation for 16 hours at 37°C.</p>	<b>Pass</b>
<p><b>Phage Resistance (φ 80)</b> 15 µl of untransformed NEB® 10-beta 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>Antibiotic Sensitivity (Ampicillin)</b> 15 µl of untransformed NEB® 10-beta Competent E. coli (High Efficiency) streaked onto a Rich Broth plate containing Ampicillin will not form colonies after incubation for 16 hours at 37°C.</p>	<b>Pass</b>
<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>

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

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