

## New England Biolabs Certificate of Analysis

**Product Name:** NEB® 10-beta Competent *E. coli* (High Efficiency)  
**Catalog Number:** C3019H  
**Packaging Lot Number:** 10114327  
**Expiration Date:** 06/2022  
**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	10109274	Pass
C3019HVIAL	NEB® 10-beta Competent <i>E. coli</i> (High Efficiency)	10110337	Pass
B9035SVIAL	NEB® 10-beta/Stable Outgrowth Medium	10099264	Pass

Assay Name/Specification	Lot # 10114327
<b>Antibiotic Sensitivity (Spectinomycin)</b> 15 µl 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.	<b>Pass</b>
<b>Antibiotic Sensitivity (Nitrofurantoin)</b> 15 µl 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.	<b>Pass</b>
<b>Antibiotic Sensitivity (Tetracycline)</b> 15 µl 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.	<b>Pass</b>
<b>Antibiotic Resistance (Streptomycin)</b> 15 µl 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.	<b>Pass</b>
<b>Antibiotic Sensitivity (Ampicillin)</b> 15 µl 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	<b>Pass</b>

Assay Name/Specification	Lot # 10114327
incubation for 16 hours at 37°C.	
<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 (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>Transformation Efficiency</b> 50 µl of NEB® 10-beta 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 10<sup>9</sup> cfu/µg of DNA.</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>Blue-White Screening (α-complementation, Competent Cells)</b> NEB® 10-beta 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>

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

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Lixin An  
Production Scientist  
09 Jul 2021



Nick Privitera  
Packaging Quality Control Inspector  
09 Jul 2021