

## New England Biolabs Certificate of Analysis

Product Name: *NEB® 10-beta Competent E. coli (High Efficiency)*  
 Catalog Number: *C3019I*  
 Packaging Lot Number: *10120008*  
 Expiration Date: *08/2022*  
 Storage Temperature: *-80°C*  
 Specification Version: *PS-C3019H/I v1.0*

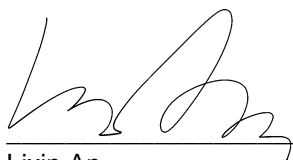
NEB® 10-beta Competent E. coli (High Efficiency) Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
N3041AVIAL	pUC19 Vector	10115609	Pass
C3019IVIAL	NEB® 10-beta Competent E. coli (High Efficiency)	10111343	Pass
B9035SVIAL	NEB® 10-beta/Stable Outgrowth Medium	10107508	Pass

Assay Name/Specification	Lot # 10120008
<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>	Pass
<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>	Pass
<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>	Pass
<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>	Pass
<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</p>	Pass

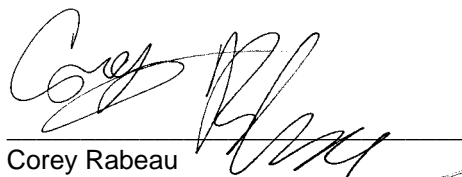
Assay Name/Specification	Lot # 10120008
incubation for 16 hours at 37°C.	
<p><b>Antibiotic Sensitivity (Kanamycin)</b> 15 µl of untransformed NEB® 10-beta Competent E. coli (High Efficiency) streaked onto a Rich Broth plate containing Kanamycin will not form colonies after incubation for 16 hours at 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 10e9 cfu/µg of DNA.</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>
<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>

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

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Lixin An  
Production Scientist  
25 Aug 2021



Corey Rabeau  
Packaging Quality Control Inspector  
25 Aug 2021