Product Name: NEB® 10-beta Competent E. coli (High Efficiency)
Catalog Number: C3019H
Lot Number: 10055254
Expiration Date: 08/2020
Storage Temperature: -80°C
Specification Version: PS-C3019H/I v1.0

<table>
<thead>
<tr>
<th>NEB Part Number</th>
<th>Component Description</th>
<th>Lot Number</th>
<th>Individual QC Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>N3041AVIAL</td>
<td>pUC19 Vector</td>
<td>10047676</td>
<td>Pass</td>
</tr>
<tr>
<td>C3019HVIAL</td>
<td>NEB® 10-beta Competent E. coli (High Efficiency)</td>
<td>10047094</td>
<td>Pass</td>
</tr>
<tr>
<td>B9035SVIAL</td>
<td>NEB® 10-beta/Stable Outgrowth Medium</td>
<td>10048133</td>
<td>Pass</td>
</tr>
</tbody>
</table>

Assay Name/Specification

**Antibiotic Resistance (Streptomycin)**
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.

**Antibiotic Sensitivity (Ampicillin)**
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.

**Antibiotic Sensitivity (Chloramphenicol)**
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.

**Antibiotic Sensitivity (Kanamycin)**
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.

**Antibiotic Sensitivity (Nitrofurantoin)**
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.
Incubation for 16 hours at 37°C.

**Antibiotic Sensitivity (Spectinomycin)**
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.

**Pass**

**Antibiotic Sensitivity (Tetracycline)**
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.

**Pass**

**Blue-White Screening (α-complementation, Competent Cells)**
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.

**Pass**

**Phage Resistance (ϕ 80)**
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.

**Pass**

**Transformation Efficiency**
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 >1 x 10e9 cfu/µg of DNA.

**Pass**

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

Lixin An  
Production Scientist  
20 Jun 2019

Nick Privitera  
Packaging Quality Control Inspector  
09 Sep 2019