

## New England Biolabs Certificate of Analysis

**Product Name:** NEB® 10-beta Competent *E. coli* (High Efficiency)  
**Catalog Number:** C3019H  
**Packaging Lot Number:** 10138507  
**Expiration Date:** 01/2023  
**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  | 10129358   | Pass                 |
| C3019HVIAL   | NEB® 10-beta Competent <i>E. coli</i> (High Efficiency) | 10128852   | Pass                 |
| B9035SVIAL   | NEB® 10-beta/Stable Outgrowth Medium                    | 10125556   | Pass                 |

| Assay Name/Specification   | Lot # 10138507 |
|--|----------------|
| <b>Blue-White Screening (<math>\alpha</math>-complementation, Competent Cells)</b><br>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><br>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><br>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><br>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><br>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 # 10138507 |
|--|----------------|
| <p><b>Antibiotic Sensitivity (Chloramphenicol)</b><br/>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><br/>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><br/>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><br/>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><br/>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.

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