

## New England Biolabs Certificate of Analysis

**Product Name:** NEB® 5-alpha F Iq Competent *E. coli* (High Efficiency)  
**Catalog Number:** C2992I  
**Lot Number:** 10048965  
**Expiration Date:** 06/2020  
**Storage Temperature:** -80°C  
**Specification Version:** PS-C2992H/I v1.0

| NEB® 5-alpha F Iq Competent <i>E. coli</i> (High Efficiency) Component List |  |            |                      |
|---|--|------------|----------------------|
| NEB Part Number   | Component Description  | Lot Number | Individual QC Result |
| N3041AVIAL  | pUC19 Vector   | 10043515   | Pass                 |
| C2992IVIAL  | NEB® 5-alpha F Iq Competent <i>E. coli</i> (High Efficiency) | 10033538   | Pass                 |
| B9020SVIAL  | SOC Outgrowth Medium   | 10040227   | Pass                 |

| Assay Name/Specification   | Lot # 10048965 |
|--|----------------|
| <b>Antibiotic Resistance (Tetracycline)</b><br>15 µl of untransformed NEB® 5-alpha F'Iq Competent <i>E. coli</i> (High Efficiency) streaked onto a Rich Broth plate containing Tetracycline will form colonies after incubation for 16 hours at 37°C.            | <b>Pass</b>    |
| <b>Antibiotic Sensitivity (Ampicillin)</b><br>15 µl of untransformed NEB® 5-alpha F'Iq 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.           | <b>Pass</b>    |
| <b>Antibiotic Sensitivity (Chloramphenicol)</b><br>15 µl of untransformed NEB® 5-alpha F'Iq Competent <i>E. coli</i> (High Efficiency) streaked onto a Rich Broth plate containing Chloramphenicol will not form colonies after incubation for 16 hours at 37°C. | <b>Pass</b>    |
| <b>Antibiotic Sensitivity (Kanamycin)</b><br>15 µl of untransformed NEB® 5-alpha F'Iq Competent <i>E. coli</i> (High Efficiency) streaked onto a Rich Broth plate containing Kanamycin will not form colonies after incubation for 16 hours at 37°C.             | <b>Pass</b>    |
| <b>Antibiotic Sensitivity (Nitrofurantoin)</b><br>15 µl of untransformed NEB® 5-alpha F'Iq Competent <i>E. coli</i> (High Efficiency)  | <b>Pass</b>    |

| Assay Name/Specification  | Lot # 10048965 |
|---|----------------|
| <p>streaked onto a Rich Broth plate containing Nitrofurantoin will not form colonies after incubation for 16 hours at 37°C.</p>   |                |
| <p><b>Antibiotic Sensitivity (Spectinomycin)</b><br/>15 µl of untransformed NEB® 5-alpha F'Iq 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 (Streptomycin)</b><br/>15 µl of untransformed NEB® 5-alpha F'Iq Competent E. coli (High Efficiency) streaked onto a Rich Broth plate containing Streptomycin will not form colonies after incubation for 16 hours at 37°C.</p>   | <b>Pass</b>    |
| <p><b>Blue-White Screening (α-complementation, Competent Cells)</b><br/>NEB® 5-alpha F'Iq 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><br/>15 µl of untransformed NEB® 5-alpha F'Iq 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>Transformation Efficiency</b><br/>50 µl of NEB® 5-alpha F'Iq 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>    |

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




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Lixin An  
Production Scientist  
01 Feb 2019




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Corey Rabeau  
Packaging Quality Control Inspector  
05 Jul 2019