

New England Biolabs Certificate of Analysis

Product Name: NEB® 5-alpha Competent *E. coli* (High Efficiency)
Catalog Number: C2987H
Packaging Lot Number: 10257385
Expiration Date: 08/2025
Storage Temperature: -80°C
Specification Version: PS-C2987H/I v1.0

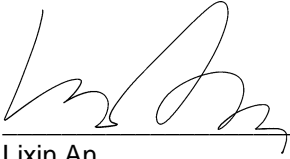
| NEB® 5-alpha Competent <i>E. coli</i> (High Efficiency) Component List | | | |
|--|---|------------|----------------------|
| NEB Part Number | Component Description | Lot Number | Individual QC Result |
| N3041AVIAL | pUC19 Vector | 10250730 | Pass |
| C2987HVIAL | NEB® 5-alpha Competent <i>E. coli</i> (High Efficiency) | 10238362 | Pass |
| B9020SVIAL | SOC Outgrowth Medium | 10236131 | Pass |

| Assay Name/Specification | Lot # 10257385 |
|---|----------------|
| Antibiotic Sensitivity (Ampicillin) 15 µl of untransformed NEB® 5-alpha 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 |
| Antibiotic Sensitivity (Chloramphenicol) 15 µl of untransformed NEB® 5-alpha 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. | Pass |
| Antibiotic Sensitivity (Chloramphenicol) 15 µl of untransformed NEB® 5-alpha 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. | Pass |
| Antibiotic Sensitivity (Kanamycin) 15 µl of untransformed NEB® 5-alpha 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. | Pass |
| Antibiotic Sensitivity (Nitrofurantoin) 15 µl of untransformed NEB® 5-alpha Competent <i>E. coli</i> (High Efficiency) streaked onto a Rich Broth plate containing Nitrofurantoin will not form colonies after | Pass |

| Assay Name/Specification | Lot # 10257385 |
|--|----------------|
| incubation for 16 hours at 37°C. | |
| <p>Antibiotic Sensitivity (Spectinomycin) 15 µl of untransformed NEB® 5-alpha 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>Antibiotic Sensitivity (Streptomycin) 15 µl of untransformed NEB® 5-alpha 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> | Pass |
| <p>Antibiotic Sensitivity (Tetracycline) 15 µl of untransformed NEB® 5-alpha 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>Blue-White Screening (α-complementation, Competent Cells) NEB® 5-alpha 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> | Pass |
| <p>Phage Resistance (φ 80) 15 µl of untransformed NEB® 5-alpha 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> | Pass |
| <p>Transformation Efficiency 50 µl of NEB® 5-alpha 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 10⁹ cfu/µg of DNA.</p> | Pass |

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

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Production Scientist
24 May 2024



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