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## New England Biolabs Certificate of Analysis

Product Name: NEB® 5-alpha Competent E. coli (High Efficiency)

Catalog Number: C2987I
Packaging Lot Number: 10115080
Expiration Date: 06/2022
Storage Temperature: -80°C

Specification Version: PS-C2987H/I v1.0

| NEB® 5-alpha Competent E. coli (High Efficiency) Component List |  |            |                      |  |
|---|--|------------|----------------------|--|
| <b>NEB Part Number</b>  | Component Description                            | Lot Number | Individual QC Result |  |
| N3041AVIAL  | pUC19 Vector                                     | 10109274   | Pass                 |  |
| C2987IVIAL  | NEB® 5-alpha Competent E. coli (High Efficiency) | 10106499   | Pass                 |  |
| B9020SVIAL  | SOC Outgrowth Medium                             | 10107466   | Pass                 |  |

| Assay Name/Specification   | Lot # 10115080 |
|--|----------------|
| 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.     | Pass           |
| Antibiotic Sensitivity (Nitrofurantoin) 15 µl of untransformed NEB® 5-alpha 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.   | Pass           |
| Antibiotic Sensitivity (Kanamycin) 15 µl of untransformed NEB® 5-alpha 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.             | Pass           |
| Antibiotic Sensitivity (Chloramphenicol) 15 µl of untransformed NEB® 5-alpha 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. | Pass           |
| Antibiotic Sensitivity (Ampicillin) 15 µl of untransformed NEB® 5-alpha Competent E. coli (High Efficiency) streaked onto a Rich Broth plate containing Ampicillin will not form colonies after  | Pass           |



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| Assay Name/Specification  | Lot # 10115080 |
|---|----------------|
| incubation for 16 hours at 37°C.  |                |
| 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 10e9 cfu/μg of DNA. | Pass           |
| 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.   | Pass           |
| Blue-White Screening ( $\alpha$ -complementation, Competent Cells) NEB® 5-alpha Competent E. coli (High Efficiency) were shown to be suitable for blue/white screening by $\alpha$ -complementation of the $\beta$ -galactosidase gene using pUC19.                       | Pass           |
| 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.                                      | Pass           |
| 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.                                     | Pass           |

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

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Lixin An

**Production Scientist** 

16 Jul 2021

Nick Privitera

Packaging Quality Control Inspector

16 Jul 2021



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