

240 County Road Ipswich, MA 01938-2723 Tel 978-927-5054 Fax 978-921-1350 www.neb.com info@neb.com

New England Biolabs Certificate of Analysis

| Product Name: | NEB® 5-alpha Competent E. coli (High Efficiency) |
|------------------------|--|
| Catalog #: | <i>C2987U</i> |
| <i>Lot</i> #: | 4641609 |
| Assay Date: | 09/2016 |
| Expiration Date: | 09/2017 |
| Storage Temp: | -80°C |
| Specification Version: | PS-C2987U v1.0 |
| Effective Date: | 07 Jul 2016 |

| Assay Name/Specification (minimum release criteria) | Lot #4641609 |
|---|--------------|
| Antibiotic Sensitivity (Ampicillin) - 15 μ l 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 μ l 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 μ l 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 incubation for 16 hours at 37°C. | Pass |
| Antibiotic Sensitivity (Spectinomycin) - 15 μ l of untransformed NEB® 5-alpha Competent <i>E. coli</i> (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 (Streptomycin) - 15 µl of untransformed NEB® 5-alpha Competent <i>E. coli</i> (High Efficiency) streaked onto a Rich Broth plate containing Streptomycin will not form colonies after incubation for 16 hours at 37°C. | Pass |
| Antibiotic Sensitivity (Tetracycline) - 15 μ l of untransformed NEB® 5-alpha Competent <i>E. coli</i> (High Efficiency) streaked onto a Rich Broth plate containing Tetracycline will not form colonies after incubation for 16 hours at 37°C. | Pass |



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| Blue-White Screening (α-complementation, Competent Cells) - NEB® 5-alpha Competent <i>E. coli</i> (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® 5-alpha Competent <i>E. coli</i> (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 μ l of NEB® 5-alpha 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 x 10e9 cfu/ μ g of DNA. | Pass |

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Authorized by Derek Robinson 07 Jul 2016



Inspected by Lixin An 08 Sep 2016