

## New England Biolabs Certificate of Analysis

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

 Catalog #:
 C2987U

 Lot #:
 4901612

 Assay Date:
 12/2016

 Expiration Date:
 12/2017

 Storage Temp:
 -80°C

Specification Version: PS-C2987U v1.0
Effective Date: 06 Sep 2016

Assay Name/Specification (minimum release criteria)	Lot #4901612
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 (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 incubation for 16 hours at 37°C.	Pass
Antibiotic Sensitivity (Spectinomycin) - 15 µl 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 µl 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 ( $\alpha$ -complementation, Competent Cells) - NEB® 5-alpha 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
Phage Resistance ( $\Phi$ 80) - 15 $\mu$ l 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 $\Phi$ 80 after incubation for 16 hours at 37°C.	Pass
<b>Transformation Efficiency</b> - 50 $\mu$ 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/ $\mu$ g of DNA.	Pass

Authorized by Derek Robinson 06 Sep 2016







Inspected by Lixin An 06 Dec 2016