

## New England Biolabs Certificate of Analysis

Product Name: NEB® 5-alpha Competent *E. coli* (High Efficiency)  
 Catalog Number: C2987R  
 Packaging Lot Number: 10107348  
 Expiration Date: 12/2022  
 Storage Temperature: -80°C  
 Specification Version: PS-C2987R v3.0

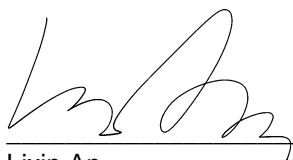
NEB® 5-alpha Competent <i>E. coli</i> (High Efficiency) Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
N3041AVIAL	pUC19 Vector	10103254	Pass
C2987RVIAL	NEB® 5-alpha Competent <i>E. coli</i> (High Efficiency)	10009111	Pass
B9040AVIAL	Outgrowth Medium 1.5	10094776	Pass

Assay Name/Specification	Lot # 10107348
<p><b>Phage Resistance (<math>\phi</math> 80)</b>            15 <math>\mu</math>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 <math>\phi</math> 80 after incubation for 16 hours at 37°C.</p>	Pass
<p><b>Transformation Efficiency</b>            1 well 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 <math>&gt;1 \times 10^8</math> cfu/<math>\mu</math>g of DNA.</p>	Pass
<p><b>Antibiotic Sensitivity (Nitrofurantoin)</b>            15 <math>\mu</math>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.</p>	Pass
<p><b>Antibiotic Sensitivity (Streptomycin)</b>            15 <math>\mu</math>l 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.</p>	Pass
<p><b>Antibiotic Sensitivity (Tetracycline)</b>            15 <math>\mu</math>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</p>	Pass

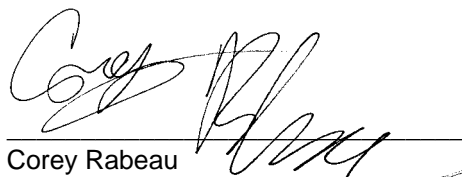
Assay Name/Specification	Lot # 10107348
<p>incubation for 16 hours at 37°C.</p> <p><b>Antibiotic Sensitivity (Spectinomycin)</b> 15 µl of untransformed NEB® 5-alpha Competent E. coli (High Efficiency) streaked onto a Rich Broth plate containing Spectinomycin will not form colonies after incubation for 16 hours at 37°C.</p>	<b>Pass</b>
<p><b>Antibiotic Sensitivity (Chloramphenicol)</b> 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.</p>	<b>Pass</b>
<p><b>Antibiotic Sensitivity (Kanamycin)</b> 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.</p>	<b>Pass</b>
<p><b>Blue-White Screening (α-complementation, Competent Cells)</b> 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>	<b>Pass</b>
<p><b>Antibiotic Sensitivity (Ampicillin)</b> 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 incubation for 16 hours at 37°C.</p>	<b>Pass</b>

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

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