

## New England Biolabs Certificate of Analysis

Product Name: NEB<sup>®</sup> 5-alpha Electrocompetent *E. coli*  
 Catalog #: C2989K  
 Lot #: 0991709  
 Assay Date: 09/2017  
 Expiration Date: 09/2018  
 Storage Temp: -80°C  
 Specification Version: PS-C2989K v1.0  
 Effective Date: 13 Sep 2017

Assay Name/Specification (minimum release criteria)	Lot #0991709
<b>Antibiotic Sensitivity (Ampicillin)</b> - 15 µl of untransformed NEB <sup>®</sup> 5-alpha Electrocompetent <i>E. coli</i> streaked onto a LB or Rich Broth plate containing Ampicillin will not form colonies after incubation for 16 hours at 37°C.	<b>Pass</b>
<b>Antibiotic Sensitivity (Chloramphenicol)</b> - 15 µl of untransformed NEB <sup>®</sup> 5-alpha Electrocompetent <i>E. coli</i> streaked onto a LB or Rich Broth plate containing Chloramphenicol will not form colonies after incubation for 16 hours at 37°C.	<b>Pass</b>
<b>Antibiotic Sensitivity (Kanamycin)</b> - 15 µl of untransformed NEB <sup>®</sup> 5-alpha Electrocompetent <i>E. coli</i> streaked onto a LB or Rich Broth plate containing Kanamycin will not form colonies after incubation for 16 hours at 37°C.	<b>Pass</b>
<b>Antibiotic Sensitivity (Nitrofurantoin)</b> - 15 µl of untransformed NEB <sup>®</sup> 5-alpha Electrocompetent <i>E. coli</i> streaked onto a LB or Rich Broth plate containing Nitrofurantoin will not form colonies after incubation for 16 hours at 37°C.	<b>Pass</b>
<b>Antibiotic Sensitivity (Spectinomycin)</b> - 15 µl of untransformed NEB <sup>®</sup> 5-alpha Electrocompetent <i>E. coli</i> streaked onto a LB or Rich Broth plate containing Spectinomycin will not form colonies after incubation for 16 hours at 37°C.	<b>Pass</b>
<b>Antibiotic Sensitivity (Streptomycin)</b> - 15 µl of untransformed NEB <sup>®</sup> 5-alpha Electrocompetent <i>E. coli</i> streaked onto a LB or Rich Broth plate containing Streptomycin will not form colonies after incubation for 16 hours at 37°C.	<b>Pass</b>
<b>Antibiotic Sensitivity (Tetracycline)</b> - 15 µl of untransformed NEB <sup>®</sup> 5-alpha Electrocompetent <i>E. coli</i> streaked onto a LB or Rich Broth plate containing Tetracycline will not form colonies after incubation for 16 hours at 37°C.	<b>Pass</b>



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<p><b>Blue-White Screening (<math>\alpha</math>-complementation, Competent Cells)</b> - NEB<sup>®</sup> 5-alpha Electrocompetent <i>E. coli</i> were shown to be suitable for blue/white screening by <math>\alpha</math>-complementation of the <math>\beta</math>-galactosidase gene using pUC19.</p>	<b>Pass</b>
<p><b>Phage Resistance (<math>\Phi</math> 80)</b> - 15 <math>\mu</math>l of untransformed NEB<sup>®</sup> 5-alpha Electrocompetent <i>E. coli</i> 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>	<b>Pass</b>
<p><b>Transformation Efficiency</b> - 25 <math>\mu</math>l of NEB<sup>®</sup> 5-alpha Electrocompetent <i>E. coli</i> cells were transformed with 10 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^{10}</math> cfu/<math>\mu</math>g of DNA.</p>	<b>Pass</b>




Authorized by  
Quiting Ren  
13 Sep 2017

Inspected by

