

## New England Biolabs Certificate of Analysis

Product Name: NEB® 5-alpha Electrocompetent *E.coli*  
 Catalog Number: C2989K  
 Lot Number: 10011194  
 Expiration Date: 05/2019  
 Storage Temperature: -80°C  
 Specification Version: PS-C2989K v1.0

NEB® 5-alpha Electrocompetent E.coli Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
N3041AVIAL	pUC19 Vector	40CC67	Pass
C2989KVIAL	NEB® 5-alpha Electrocompetent <i>E.coli</i>	10009345	Pass
B9020SVIAL	SOC Outgrowth Medium	5621804	Pass

Assay Name/Specification	Lot # 10011194
<p><b>Phage Resistance (<math>\phi</math> 80)</b>            15 <math>\mu</math>l of untransformed NEB® 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>	Pass
<p><b>Blue-White Screening (<math>\alpha</math>-complementation, Competent Cells)</b>            NEB® 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>	Pass
<p><b>Transformation Efficiency</b>            25 <math>\mu</math>l of NEB® 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>	Pass
<p><b>Antibiotic Sensitivity (Spectinomycin)</b>            15 <math>\mu</math>l of untransformed NEB® 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.</p>	Pass
<p><b>Antibiotic Sensitivity (Streptomycin)</b>            15 <math>\mu</math>l of untransformed NEB® 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.</p>	Pass

Assay Name/Specification	Lot # 10011194
<p><b>Antibiotic Sensitivity (Nitrofurantoin)</b> 15 µl of untransformed NEB® 5-alpha Electrocompetent E. coli streaked onto a LB or Rich Broth plate containing Nitrofurantoin will not form colonies after incubation for 16 hours at 37°C.</p>	<b>Pass</b>
<p><b>Antibiotic Sensitivity (Tetracycline)</b> 15 µl of untransformed NEB® 5-alpha Electrocompetent E. coli streaked onto a LB or Rich Broth plate containing Tetracycline 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 Electrocompetent E. coli streaked onto a LB or 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 Electrocompetent E. coli streaked onto a LB or Rich Broth plate containing Kanamycin will not form colonies after incubation for 16 hours at 37°C.</p>	<b>Pass</b>
<p><b>Antibiotic Sensitivity (Ampicillin)</b> 15 µl of untransformed NEB® 5-alpha Electrocompetent E. coli streaked onto a LB or 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.



Quiting Ren  
Production Scientist  
05 Jun 2018



Nick Privitera  
Packaging Quality Control Inspector  
05 Jun 2018