

## New England Biolabs Certificate of Analysis

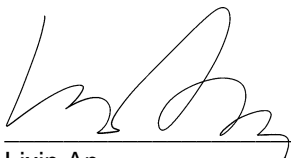
Product Name: NEB® 5-alpha F Iq Competent E. coli (High Efficiency)  
 Catalog Number: C2992H  
 Lot Number: 10030910  
 Expiration Date: 12/2019  
 Storage Temperature: -80°C  
 Specification Version: PS-C2992H/I v1.0

NEB® 5-alpha F Iq Competent E. coli (High Efficiency) Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
N3041AVIAL	pUC19 Vector	10025691	Pass
C2992HVIAL	NEB® 5-alpha F Iq Competent E. coli (High Efficiency)	10023483	Pass
B9020SVIAL	SOC Outgrowth Medium	10014596	Pass

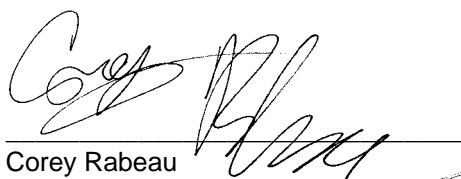
Assay Name/Specification	Lot # 10030910
<p><b>Blue-White Screening (<math>\alpha</math>-complementation, Competent Cells)</b>            NEB® 5-alpha F'Iq Competent E. coli (High Efficiency) were shown to be suitable for blue/white screening by <math>\alpha</math>-complementation of the <math>\beta</math>-galactosidase gene using pUC19.</p>	Pass
<p><b>Phage Resistance (<math>\phi</math> 80)</b>            15 <math>\mu</math>l of untransformed NEB® 5-alpha F'Iq Competent E. coli (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>            50 <math>\mu</math>l of NEB® 5-alpha F'Iq Competent E. coli (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 10^9</math> cfu/<math>\mu</math>g of DNA.</p>	Pass
<p><b>Antibiotic Resistance (Tetracycline)</b>            15 <math>\mu</math>l of untransformed NEB® 5-alpha F'Iq Competent E. coli (High Efficiency) streaked onto a Rich Broth plate containing Tetracycline will form colonies after incubation for 16 hours at 37°C.</p>	Pass
<p><b>Antibiotic Sensitivity (Ampicillin)</b>            15 <math>\mu</math>l of untransformed NEB® 5-alpha F'Iq Competent E. coli (High Efficiency)</p>	Pass

Assay Name/Specification	Lot # 10030910
<p>streaked onto a Rich Broth plate containing Ampicillin will not form colonies after incubation for 16 hours at 37°C.</p>	
<p><b>Antibiotic Sensitivity (Chloramphenicol)</b> 15 µl of untransformed NEB® 5-alpha F'Iq 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 F'Iq 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>Antibiotic Sensitivity (Nitrofurantoin)</b> 15 µl of untransformed NEB® 5-alpha F'Iq Competent E. coli (High Efficiency) streaked onto a 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 (Spectinomycin)</b> 15 µl of untransformed NEB® 5-alpha F'Iq 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 (Streptomycin)</b> 15 µl of untransformed NEB® 5-alpha F'Iq Competent E. coli (High Efficiency) streaked onto a Rich Broth plate containing Streptomycin 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.



Lixin An  
Production Scientist  
05 Oct 2018



Corey Rabeau  
Packaging Quality Control Inspector  
10 Dec 2018