

## New England Biolabs Certificate of Analysis

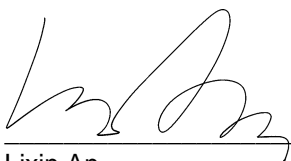
**Product Name:** NEB® 5-alpha F Iq Competent *E. coli* (High Efficiency)  
**Catalog Number:** C2992H  
**Lot Number:** 10016264  
**Expiration Date:** 07/2019  
**Storage Temperature:** -80°C  
**Specification Version:** PS-C2992H/I v1.0

NEB® 5-alpha F Iq Competent <i>E. coli</i> (High Efficiency) Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
N3041AVIAL	pUC19 Vector	10010689	Pass
C2992HVIAL	NEB® 5-alpha F Iq Competent <i>E. coli</i> (High Efficiency)	10009083	Pass
B9020SVIAL	SOC Outgrowth Medium	5681804	Pass

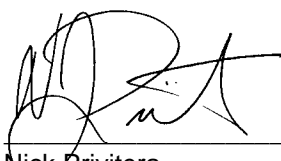
Assay Name/Specification	Lot # 10016264
<b>Antibiotic Sensitivity (Spectinomycin)</b> 15 µl of untransformed NEB® 5-alpha F'Iq Competent <i>E. coli</i> (High Efficiency) streaked onto a Rich Broth plate containing Spectinomycin will not form colonies after incubation for 16 hours at 37°C.	Pass
<b>Antibiotic Sensitivity (Streptomycin)</b> 15 µl of untransformed NEB® 5-alpha F'Iq 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
<b>Blue-White Screening (α-complementation, Competent Cells)</b> NEB® 5-alpha F'Iq Competent <i>E. coli</i> (High Efficiency) were shown to be suitable for blue/white screening by α-complementation of the β-galactosidase gene using pUC19.	Pass
<b>Phage Resistance (φ 80)</b> 15 µl of untransformed NEB® 5-alpha F'Iq Competent <i>E. coli</i> (High Efficiency) streaked onto a Rich Broth plate does not support plaque formation by phage φ 80 after incubation for 16 hours at 37°C.	Pass
<b>Transformation Efficiency</b> 50 µl of NEB® 5-alpha F'Iq Competent <i>E. coli</i> (High Efficiency) cells were transformed with 100 pg of pUC19 DNA using the transformation protocol provided.	Pass

Assay Name/Specification	Lot # 10016264
Incubation overnight on LB-Ampicillin plates at 37°C resulted in >1 x 10e9 cfu/μg of DNA.	
<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.	<b>Pass</b>
<b>Antibiotic Resistance (Tetracycline)</b> 15 μl 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.	<b>Pass</b>
<b>Antibiotic Sensitivity (Ampicillin)</b> 15 μl of untransformed NEB® 5-alpha F'Iq 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.	<b>Pass</b>
<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.	<b>Pass</b>
<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.	<b>Pass</b>

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



Lixin An  
Production Scientist  
27 Jul 2018



Nick Privitera  
Packaging Quality Control Inspector  
27 Jul 2018