

## New England Biolabs Certificate of Analysis

Product Name: NEB® 5-alpha Competent *E. coli* (High Efficiency)  
 Catalog Number: C2987P  
 Packaging Lot Number: 10185131  
 Expiration Date: 03/2024  
 Storage Temperature: -80°C  
 Specification Version: PS-C2987P v2.0

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	10176319	Pass
C2987PVIAL	NEB® 5-alpha Competent <i>E. coli</i> (High Efficiency)	10167993	Pass
B9020SVIAL	SOC Outgrowth Medium	10174256	Pass

Assay Name/Specification	Lot # 10185131
<b>Antibiotic Sensitivity (Ampicillin)</b> 15 µl of untransformed NEB® 5-alpha Competent <i>E. coli</i> (High Efficiency) streaked onto a Rich Broth plate containing Ampicillin will not form colonies after incubation for 16 hours at 37°C.	Pass
<b>Antibiotic Sensitivity (Chloramphenicol)</b> 15 µl of untransformed NEB® 5-alpha Competent <i>E. coli</i> (High Efficiency) streaked onto a Rich Broth plate containing Chloramphenicol will not form colonies after incubation for 16 hours at 37°C.	Pass
<b>Antibiotic Sensitivity (Kanamycin)</b> 15 µl of untransformed NEB® 5-alpha Competent <i>E. coli</i> (High Efficiency) streaked onto a Rich Broth plate containing Kanamycin will not form colonies after incubation for 16 hours at 37°C.	Pass
<b>Antibiotic Sensitivity (Nitrofurantoin)</b> 15 µl 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.	Pass
<b>Antibiotic Sensitivity (Spectinomycin)</b> 15 µl of untransformed NEB® 5-alpha Competent <i>E. coli</i> (High Efficiency) streaked onto a Rich Broth plate containing Spectinomycin will not form colonies after	Pass

Assay Name/Specification	Lot # 10185131
incubation for 16 hours at 37°C.	
<b>Antibiotic Sensitivity (Streptomycin)</b> 15 µl of untransformed NEB® 5-alpha 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.	<b>Pass</b>
<b>Antibiotic Sensitivity (Tetracycline)</b> 15 µl of untransformed NEB® 5-alpha Competent E. coli (High Efficiency) streaked onto a Rich Broth plate containing Tetracycline will not form colonies after incubation for 16 hours at 37°C.	<b>Pass</b>
<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.	<b>Pass</b>
<b>Phage Resistance (φ 80)</b> 15 µl of untransformed NEB® 5-alpha Competent E. coli (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.	<b>Pass</b>
<b>Transformation Efficiency</b> 1 well of NEB® 5-alpha 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 >1 x 10e9 cfu/µg of DNA.	<b>Pass</b>

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

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit [www.neb.com/trademarks](http://www.neb.com/trademarks) for additional information.



Lixin An  
Production Scientist  
23 Dec 2022



Nick Privitera  
Packaging Quality Control Inspector  
27 Mar 2023