NEW ENGLAND BioLabs Inc.
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240 County Road
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Tel 978-927-5054
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www.neb.com
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New England Biolabs
Certificate of Analysis

Product Name: *NEB® 5-alpha Competent E. coli (High Efficiency)*
Catalog Number: *C2987H*
Packaging Lot Number: *10170252*
Expiration Date: *10/2023*
Storage Temperature: *-80°C*
Specification Version: *PS-C2987H/I v1.0*

NEB® 5-alpha Competent E. coli (High Efficiency) Component List			
NEB Part Number	**Component Description**	**Lot Number**	**Individual QC Result**
N3041AVIAL	pUC19 Vector	10165704	**Pass**
C2987HVIAL	NEB® 5-alpha Competent E. coli (High Efficiency)	10159751	**Pass**
B9020SVIAL	SOC Outgrowth Medium	10160314	**Pass**

Assay Name/Specification	Lot # 10170252
Antibiotic Sensitivity (Tetracycline) 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.	**Pass**
Antibiotic Sensitivity (Streptomycin) 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.	**Pass**
Antibiotic Sensitivity (Spectinomycin) 15 µl of untransformed NEB® 5-alpha 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.	**Pass**
Antibiotic Sensitivity (Nitrofurantoin) 15 µl of untransformed NEB® 5-alpha 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.	**Pass**
Antibiotic Sensitivity (Kanamycin) 15 µl of untransformed NEB® 5-alpha Competent E. coli (High Efficiency) streaked onto a Rich Broth plate containing Kanamycin will not form colonies after incubation	**Pass**

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Assay Name/Specification	Lot # 10170252
for 16 hours at 37°C.	
Antibiotic Sensitivity (Ampicillin) 15 µl of untransformed NEB® 5-alpha 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.	**Pass**
Antibiotic Sensitivity (Chloramphenicol) 15 µl of untransformed NEB® 5-alpha 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.	**Pass**
Antibiotic Sensitivity (Chloramphenicol) 15 µl of untransformed NEB® 5-alpha 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.	**Pass**
Transformation Efficiency 50 µl 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.	**Pass**
Phage Resistance (ϕ 80) 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.	**Pass**
Blue-White Screening (α-complementation, Competent Cells) 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.	**Pass**

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

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Chris Blanchette
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19 Aug 2022

Nick Privitera
Packaging Quality Control Inspector
03 Nov 2022