

New England Biolabs Certificate of Analysis

Product Name: SHuffle[®] T7 Express Competent *E.coli*
Catalog Number: C3029J
Packaging Lot Number: 10076057
Expiration Date: 04/2021
Storage Temperature: -80°C
Specification Version: PS-C3029J v1.0

SHuffle [®] T7 Express Competent E.coli Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
C3029JVIAL	SHuffle [®] T7 Express Competent E.coli	10070934	Pass

Assay Name/Specification	Lot # 10076057
Transformation Efficiency 50 µl of SHuffle [®] T7 Express Competent E. coli 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 10e7 cfu/µg of DNA.	Pass
Phage Resistance (φ 80) 15 µl of untransformed Shuffle [®] T7 Express Competent E. coli streaked onto a Rich Broth plate does not support plaque formation by phage φ 80 after incubation for 16 hours at 37°C.	Pass
Functional Testing (Disulfide Bond Formation) The nuclease NucA requires disulfide bonds for its stability. When expressed at 37°C in E. coli, NucA is toxic to cells only in its oxidized disulfide-bonded state. Transformation of SHuffle [®] T7 Express Competent E. coli using 100 pg of plasmid that expresses a MBP-NucA fusion results in < 1% of the colonies when compared to a control transformation of its wild type parent strain NEB 10-beta.	Pass
Antibiotic Sensitivity (Tetracycline) 15 µl of untransformed Shuffle [®] T7 Express Competent E. coli streaked onto a LB or Rich Broth plate containing Tetracycline will not form colonies after incubation for 16 hours at 37°C.	Pass
Antibiotic Sensitivity (Kanamycin) 15 µl of untransformed Shuffle [®] T7 Express Competent E. coli streaked onto a LB or Rich Broth plate containing Kanamycin will not form colonies after incubation for 16 hours at 37°C.	Pass

Assay Name/Specification	Lot # 10076057
<p>Antibiotic Sensitivity (Chloramphenicol) 15 µl of untransformed Shuffle® T7 Express Competent 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>	Pass
<p>Antibiotic Sensitivity (Ampicillin) 15 µl of untransformed Shuffle® T7 Express Competent 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>	Pass
<p>Antibiotic Resistance (Streptomycin) 15 µl of untransformed Shuffle® T7 Express Competent E. coli streaked onto a LB or Rich Broth plate containing Streptomycin will form colonies after incubation for 16 hours at 37°C.</p>	Pass
<p>Antibiotic Resistance (Spectinomycin) 15 µl of untransformed Shuffle® T7 Express Competent E. coli streaked onto a LB or Rich Broth plate containing Spectinomycin will form colonies after incubation for 16 hours at 37°C.</p>	Pass
<p>Antibiotic Resistance (Nitrofurantoin) 15 µl of untransformed Shuffle® T7 Express Competent E. coli streaked onto a LB or Rich Broth plate containing Nitrofurantoin will form colonies after incubation for 16 hours at 37°C.</p>	Pass

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



Quieting Ren
Production Scientist
21 May 2020



Nick Privitera
Packaging Quality Control Inspector
21 May 2020