

New England Biolabs Certificate of Analysis

Product Name: SHuffle[®] T7 Express Competent *E.coli*
 Catalog Number: C3029J
 Packaging Lot Number: 10090645
 Expiration Date: 11/2021
 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	10088363	Pass

Assay Name/Specification	Lot # 10090645
<p>Antibiotic Resistance (Nitrofurantoin) 15 µl of untransformed Shuffle[®] T7 Express Competent <i>E. coli</i> streaked onto a LB or Rich Broth plate containing Nitrofurantoin will form colonies after incubation for 16 hours at 37°C.</p>	Pass
<p>Transformation Efficiency 50 µl of SHuffle[®] T7 Express Competent <i>E. coli</i> 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 10⁷ cfu/µg of DNA.</p>	Pass
<p>Phage Resistance (φ 80) 15 µl of untransformed Shuffle[®] T7 Express Competent <i>E. coli</i> streaked onto a Rich Broth plate does not support plaque formation by phage φ 80 after incubation for 16 hours at 37°C.</p>	Pass
<p>Functional Testing (Disulfide Bond Formation) The nuclease NucA requires disulfide bonds for its stability. When expressed at 37°C in <i>E. coli</i>, NucA is toxic to cells only in its oxidized disulfide-bonded state. Transformation of SHuffle[®] T7 Express Competent <i>E. coli</i> 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.</p>	Pass
<p>Antibiotic Sensitivity (Tetracycline) 15 µl of untransformed Shuffle[®] T7 Express Competent <i>E. coli</i> streaked onto a LB or Rich Broth plate containing Tetracycline will not form colonies after incubation for 16 hours at 37°C.</p>	Pass

Assay Name/Specification	Lot # 10090645
<p>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.</p>	Pass
<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

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

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Quijing Ren
Production Scientist
19 Nov 2020



Nick Privitera
Packaging Quality Control Inspector
19 Nov 2020