

New England Biolabs Certificate of Analysis

Product Name: *SHuffle® T7 Competent E.coli*
 Catalog Number: C3026J
 Packaging Lot Number: 10099671
 Expiration Date: 12/2021
 Storage Temperature: -80°C
 Specification Version: PS-C3026J v1.0

SHuffle® T7 Competent E.coli Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
C3026JVIAL	SHuffle® T7 Competent E.coli	10094259	Pass

Assay Name/Specification	Lot # 10099671
Antibiotic Sensitivity (Ampicillin) 15 µl of untransformed SHuffle® T7 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.	Pass
Antibiotic Resistance (Streptomycin) 15 µl of untransformed SHuffle® T7 Competent E. coli streaked onto a LB or Rich Broth plate containing Streptomycin will form colonies after incubation for 16 hours at 37°C.	Pass
Antibiotic Resistance (Spectinomycin) 15 µl of untransformed SHuffle® T7 Competent E. coli streaked onto a LB or Rich Broth plate containing Spectinomycin will form colonies after incubation for 16 hours at 37°C.	Pass
Antibiotic Resistance (Nitrofurantoin) 15 µl of untransformed SHuffle® T7 Competent E. coli streaked onto a LB or Rich Broth plate containing Nitrofurantoin will form colonies after incubation for 16 hours at 37°C.	Pass
Transformation Efficiency 50 µl of SHuffle® T7 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 10 ⁶ cfu/µg of DNA.	Pass
Phage Resistance (φ 80)	Pass

Assay Name/Specification	Lot # 1009671
<p>15 µl of untransformed SHuffle® T7 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.</p>	
<p>Antibiotic Sensitivity (Chloramphenicol) 15 µl of untransformed SHuffle® T7 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>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 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.</p>	Pass
<p>Antibiotic Sensitivity (Tetracycline) 15 µl of untransformed SHuffle® T7 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.</p>	Pass
<p>Antibiotic Sensitivity (Kanamycin) 15 µl of untransformed SHuffle® T7 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

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

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Quieting Ren
Production Scientist
16 Feb 2021


Corey Rabeau
Packaging Quality Control Inspector
16 Feb 2021