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## New England Biolabs Certificate of Analysis

Product Name: SHuffle® T7 Express lysY Competent E.coli

Catalog Number: C3030J
Packaging Lot Number: 10088590
Expiration Date: 10/2021
Storage Temperature: -80°C

Specification Version: PS-C3030J v1.0

SHuffle® T7 Express lysY Competent E.coli Component List				
<b>NEB Part Number</b>	Component Description	Lot Number	Individual QC Result	
C3030JVIAL	SHuffle® T7 Express lysY Competent E.coli	10058141	Pass	

Assay Name/Specification	Lot # 10088590
Antibiotic Sensitivity (Kanamycin) 15 µl of untransformed Shuffle® T7 Express lysY 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
Antibiotic Sensitivity (Tetracycline) 15 µl of untransformed Shuffle® T7 Express lysY 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
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 lysY 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
Phage Resistance (φ 80) 15 μl of untransformed Shuffle® T7 Express lysY 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
Transformation Efficiency 50 μl of SHuffle® T7 Express lysY 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



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Assay Name/Specification	Lot # 10088590
Antibiotic Resistance (Spectinomycin) 15 µl of untransformed Shuffle® T7 Express lysY 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 (Streptomycin) 15 µl of untransformed Shuffle® T7 Express lysY 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 Sensitivity (Ampicillin) 15 µl of untransformed Shuffle® T7 Express lysY 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 (Nitrofurantoin) I5 µI of untransformed Shuffle® T7 Express lysY Competent E. coli streaked onto a LB or Rich Broth plate containing Nitrofurantoin will form colonies after incubation or 16 hours at 37°C.	Pass
Antibiotic Resistance (Chloramphenicol)  15 µl of untransformed Shuffle® T7 Express lysY Competent E. coli streaked onto a LB or Rich Broth plate containing Chloramphenicol will form colonies after incubation for 16 hours at 37°C.	Pass

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

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Production Scientist

23 Oct 2020

Corey Rabeau

Packaging Quality Control Inspector

23 Oct 2020



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