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240 County Road Ipswich, MA 01938-2723 Tel 978-927-5054 Fax 978-921-1350 www.neb.com info@neb.com

## New England Biolabs Certificate of Analysis

SHuffle® T7 Express lysY Competent E.coli
C3030J
10052233
08/2020
-80°C
PS-C3030J v1.0

SHuffle® T7 Express lysY Competent E.coli Component List				
NEB Part Number	Component Description	Lot Number	Individual QC Result	
C3030JVIAL	SHuffle® T7 Express lysY Competent E.coli	10015241	Pass	

Assay Name/Specification	Lot # 10052233
<b>Transformation Efficiency</b> 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
<b>Phage Resistance (<math>\phi</math> 80)</b> 15 µl of untransformed Shuffle® T7 Express lysY Competent E. coli streaked onto a Rich Broth plate does not support plaque formation by phage $\phi$ 80 after incubation for 16 hours at 37°C.	Pass
<b>Functional Testing (Disulfide Bond Formation)</b> 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
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
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





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Assay Name/Specification	Lot # 10052233
<b>Antibiotic Sensitivity (Ampicillin)</b> 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 (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 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 (Nitrofurantoin) 15 µl of untransformed Shuffle® T7 Express lysY 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
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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Derek Robinson Production Scientist 16 Jul 2018

Corey Rabeau

Packaging Quality Control Inspector 07 Aug 2019

