

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

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

Catalog Number: C3030J
Lot Number: 10037274
Expiration Date: 02/2020
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	10015241	Pass	

Assay Name/Specification	Lot # 10037274
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
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
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
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



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NEW ENGLAND
BioLabs Inc.

Assay Name/Specification	Lot # 10037274
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 (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 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

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

Derek Robinson Production Scientist

16 Jul 2018

Corey Rabeau

Packaging Quality Control Inspector

19 Feb 2019



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