

New England Biolabs Certificate of Analysis

Product Name: SHuffle[®] Express Competent *E.coli*
Catalog Number: C3028J
Packaging Lot Number: 10152260
Expiration Date: 05/2023
Storage Temperature: -80°C
Specification Version: PS-C3028J v1.0

SHuffle [®] Express Competent E.coli Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
C3028JVIAL	SHuffle [®] Express Competent E.coli	10135242	Pass

Assay Name/Specification	Lot # 10152260
Transformation Efficiency 50 µl of SHuffle [®] Express 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 ⁷ cfu/µg of DNA.	Pass
Phage Resistance (φ 80) 15 µl of untransformed SHuffle [®] Express 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 (Chloramphenicol) 15 µl of untransformed SHuffle [®] 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.	Pass
Antibiotic Sensitivity (Ampicillin) 15 µl of untransformed SHuffle [®] 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.	Pass
Antibiotic Resistance (Streptomycin) 15 µl of untransformed SHuffle [®] 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.	Pass
Antibiotic Resistance (Nitrofurantoin)	Pass

Assay Name/Specification	Lot # 10152260
15 µl of untransformed SHuffle [®] Express Competent E. coli streaked onto a LB or Rich Broth plate containing Nitrofurantoin will form colonies after incubation for 16 hours at 37°C.	
Antibiotic Resistance (Spectinomycin) 15 µl of untransformed SHuffle [®] 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.	Pass
Antibiotic Sensitivity (Tetracycline) 15 µl of untransformed SHuffle [®] Express 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 [®] 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.	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 [®] Express 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

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

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 Production Scientist
 17 May 2022


 Corey Rabeau
 Packaging Quality Control Inspector
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