

New England Biolabs Certificate of Analysis

Product Name: SHuffle[®] Express Competent *E.coli*
Catalog Number: C3028J
Packaging Lot Number: 10159789
Expiration Date: 07/2023
Storage Temperature: -80°C
Specification Version: PS-C3028J v1.0

| SHuffle [®] Express Competent <i>E.coli</i> Component List | | | |
|---|--|------------|----------------------|
| NEB Part Number | Component Description | Lot Number | Individual QC Result |
| C3028JVIAL | SHuffle [®] Express Competent <i>E.coli</i> | 10135242 | Pass |

| Assay Name/Specification | Lot # 10159789 |
|---|----------------|
| Phage Resistance (φ 80) 15 µl of untransformed SHuffle [®] Express Competent <i>E. coli</i> 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 [®] Express Competent <i>E. coli</i> 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 |
| Antibiotic Sensitivity (Ampicillin) 15 µl of untransformed SHuffle [®] Express Competent <i>E. coli</i> streaked onto a LB or Rich Broth plate containing Ampicillin 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 <i>E. coli</i> , NucA is toxic to cells only in its oxidized disulfide-bonded state. Transformation of SHuffle [®] Express Competent <i>E. coli</i> 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 (Kanamycin) 15 µl of untransformed SHuffle [®] Express Competent <i>E. coli</i> streaked onto a LB or Rich Broth plate containing Kanamycin will not form colonies after incubation for 16 hours at 37°C. | Pass |

| Assay Name/Specification | Lot # 10159789 |
|---|----------------|
| <p>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.</p> | Pass |
| <p>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.</p> | Pass |
| <p>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.</p> | Pass |
| <p>Antibiotic Resistance (Nitrofurantoin) 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.</p> | Pass |
| <p>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.</p> | Pass |

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

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit www.neb.com/trademarks for additional information.



Quieting Ren
Production Scientist
22 Jul 2022



Corey Rabeau
Packaging Quality Control Inspector
22 Jul 2022