NEW ENGLAND BioLabs Inc.
be INSPIRED drive DISCOVERY stay GENUINE
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 Competent E.coli*
Catalog Number: *C3029J*
Packaging Lot Number: *10180214*
Expiration Date: *02/2024*
Storage Temperature: *-80°C*
Specification Version: *PS-C3029J v1.0*

SHuffle® T7 Express Competent E.coli Component List			
NEB Part Number	**Component Description**	**Lot Number**	**Individual QC Result**
C3029JVIAL	SHuffle® T7 Express Competent E.coli	10167809	**Pass**

Assay Name/Specification	**Lot # 10180214**
Transformation Efficiency 50 µl of SHuffle® T7 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 10e7 cfu/µg of DNA.	**Pass**
Phage Resistance (ϕ 80) 15 µl of untransformed Shuffle® T7 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**
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 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 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 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**

NEW ENGLAND BioLabs Inc.
be INSPIRED drive DISCOVERY stay GENUINE
240 County Road
Ipswich, MA 01938-2723
Tel 978-927-5054
Fax 978-921-1350
www.neb.com
info@neb.com

Assay Name/Specification	Lot # 10180214
Antibiotic Resistance (Streptomycin) 15 µl of untransformed Shuffle® T7 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 (Spectinomycin) 15 µl of untransformed Shuffle® T7 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 Resistance (Nitrofurantoin) 15 µl of untransformed Shuffle® T7 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.	**Pass**
Antibiotic Sensitivity (Ampicillin) 15 µl of untransformed Shuffle® T7 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 Sensitivity (Chloramphenicol) 15 µl of untransformed Shuffle® T7 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**

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.

Doreen Duquette
Production Scientist
18 Oct 2022

Anna Sorensen
Packaging Quality Control Inspector
08 Feb 2023