

New England Biolabs Product Specification

Product Name: NEB[®] 5-alpha Competent *E. coli* (High Efficiency)
Catalog #: C2987U
Shelf Life: 12 months
Storage Temp: -80°C
Specification Version: PS-C2987U v1.0
Effective Date: 08 Mar 2016

Assay Name/Specification (minimum release criteria)

Antibiotic Sensitivity (Ampicillin) - 15 µl of untransformed NEB[®] 5-alpha Competent *E. coli* (High Efficiency) streaked onto a Rich Broth plate containing Ampicillin will not form colonies after incubation for 16 hours at 37°C.

Antibiotic Sensitivity (Chloramphenicol) - 15 µl of untransformed NEB[®] 5-alpha Competent *E. coli* (High Efficiency) streaked onto a Rich Broth plate containing Chloramphenicol will not form colonies after incubation for 16 hours at 37°C.

Antibiotic Sensitivity (Kanamycin) - 15 µl of untransformed NEB[®] 5-alpha Competent *E. coli* (High Efficiency) streaked onto a Rich Broth plate containing Kanamycin will not form colonies after incubation for 16 hours at 37°C.

Antibiotic Sensitivity (Nitrofurantoin) - 15 µl of untransformed NEB[®] 5-alpha Competent *E. coli* (High Efficiency) streaked onto a Rich Broth plate containing Nitrofurantoin will not form colonies after incubation for 16 hours at 37°C.

Antibiotic Sensitivity (Spectinomycin) - 15 µl of untransformed NEB[®] 5-alpha Competent *E. coli* (High Efficiency) streaked onto a Rich Broth plate containing Spectinomycin will not form colonies after incubation for 16 hours at 37°C.

Antibiotic Sensitivity (Streptomycin) - 15 µl of untransformed NEB[®] 5-alpha Competent *E. coli* (High Efficiency) streaked onto a Rich Broth plate containing Streptomycin will not form colonies after incubation for 16 hours at 37°C.

Antibiotic Sensitivity (Tetracycline) - 15 µl of untransformed NEB[®] 5-alpha Competent *E. coli* (High Efficiency) streaked onto a Rich Broth plate containing Tetracycline will not form colonies after incubation for 16 hours at 37°C.

Blue-White Screening (α-complementation, Competent Cells) - NEB[®] 5-alpha Competent *E. coli* (High Efficiency) were shown to be suitable for blue/white screening by α-complementation of the β-galactosidase gene using pUC19.

Phage Resistance (Φ 80) - 15 µl of untransformed NEB[®] 5-alpha Competent *E. coli* (High Efficiency) streaked onto a Rich Broth plate does not support plaque formation by phage Φ 80 after incubation for 16 hours at 37°C.

Transformation Efficiency - 50 µl of NEB[®] 5-alpha Competent *E. coli* (High Efficiency) 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 10⁹ cfu/µg of DNA.



Date 08 Mar 2016

Derek Robinson
Director of Quality Control

