

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:	NEB® 5-alpha Competent E. coli (High Efficiency)
Catalog #:	C2987H/I
<i>Lot #</i> :	4821610
Assay Date:	10/2016
Expiration Date:	10/2017
Storage Temp:	-80°C
Specification Version:	PS-C2987H/I v1.0
Effective Date:	05 Aug 2016

Assay Name/Specification (minimum release criteria)	Lot #4821610
<b>Antibiotic Sensitivity (Ampicillin)</b> - 15 $\mu$ l of untransformed NEB® 5-alpha Competent <i>E. coli</i> (High Efficiency) streaked onto a Rich Broth plate containing Ampicillin will not form colonies after incubation for 16 hours at 37°C.	Pass
<b>Antibiotic Sensitivity (Chloramphenicol)</b> - 15 $\mu$ l of untransformed NEB® 5-alpha Competent <i>E. coli</i> (High Efficiency) streaked onto a Rich Broth plate containing Chloramphenicol will not form colonies after incubation for 16 hours at 37°C.	Pass
<b>Antibiotic Sensitivity (Kanamycin)</b> - 15 μl of untransformed NEB® 5-alpha Competent <i>E. coli</i> (High Efficiency) streaked onto a Rich Broth plate containing Kanamycin will not form colonies after incubation for 16 hours at 37°C.	Pass
<b>Antibiotic Sensitivity (Nitrofurantoin)</b> - 15 $\mu$ l of untransformed NEB® 5-alpha Competent <i>E. coli</i> (High Efficiency) streaked onto a Rich Broth plate containing Nitrofurantoin will not form colonies after incubation for 16 hours at 37°C.	Pass
<b>Antibiotic Sensitivity (Spectinomycin)</b> - 15 $\mu$ l of untransformed NEB® 5-alpha Competent <i>E. coli</i> (High Efficiency) streaked onto a Rich Broth plate containing Spectinomycin will not form colonies after incubation for 16 hours at 37°C.	Pass
<b>Antibiotic Sensitivity (Streptomycin)</b> - 15 µl of untransformed NEB® 5-alpha Competent <i>E. coli</i> (High Efficiency) streaked onto a Rich Broth plate containing Streptomycin will not form colonies after incubation for 16 hours at 37°C.	Pass
<b>Antibiotic Sensitivity (Tetracycline)</b> - 15 $\mu$ l of untransformed NEB® 5-alpha Competent <i>E. coli</i> (High Efficiency) streaked onto a Rich Broth plate containing Tetracycline will not form colonies after incubation for 16 hours at 37°C.	Pass



C2987H/I Lot: 4821610 Page 1 of 2



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<b>Blue-White Screening (<math>\alpha</math>-complementation, Competent Cells)</b> - NEB® 5-alpha Competent <i>E. coli</i> (High Efficiency) were shown to be suitable for blue/white screening by $\alpha$ -complementation of the $\beta$ -galactosidase gene using pUC19.	Pass
<b>Phage Resistance (<math>\Phi</math> 80)</b> - 15 µl of untransformed NEB® 5-alpha Competent <i>E. coli</i> (High Efficiency) streaked onto a Rich Broth plate does not support plaque formation by phage $\Phi$ 80 after incubation for 16 hours at 37°C.	Pass
<b>Transformation Efficiency</b> - 50 $\mu$ l of NEB® 5-alpha Competent <i>E. coli</i> (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 10e9 cfu/ $\mu$ g of DNA.	Pass

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Authorized by Derek Robinson 05 Aug 2016



Inspected by Lixin An 04 Nov 2016