Certificate of Analysis for NR-2648

Genomic DNA from *Escherichia coli*, Strain EDL933

Catalog No. NR-2648

Product Description: Genomic DNA was extracted from a preparation of *Escherichia coli* (*E. coli*), strain EDL933, serotype O157:H7. The enterohemorrhagic *E. coli* (EHEC) strain EDL933 was isolated from raw hamburger meat implicated in a multi-state outbreak of hemorrhagic colitis in the United States in 1982.

Lot[1]: 64204555 **Manufacturing Date: 15JUL2016**

TEST	SPECIFICATIONS	RESULTS
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1480 base pairs)	≥99% sequence identity to *E. coli*, strain EDL933 (GenBank: AE005174.2)	99.9% sequence identity to *E. coli*, strain EDL933 (GenBank: AE005174.2)[2]
Agarose Gel Electrophoresis	High molecular weight chromosomal DNA	High molecular weight chromosomal DNA (Figure 1)
Concentration by PicoGreen® Measurement	0.7 to 1.5 µg in 25 to 100 µL per vial	0.99 µg in 27 µL per vial (36 µg/mL)
Functional Activity by PCR Amplification 16S ribosomal RNA gene	~ 1500 base pairs amplicon	~ 1500 base pairs amplicon
Genotypic Analysis of Virulence Markers[3,4] PCR amplification of plasmid markers *hylA* (pO157) *elt* (pJY11) *esth* (pCS1) *estp* (pCS1) EAF (pEAF) *bfpA* (pEAF) *invE* (pINV) CVD432 (pAA) *aggR* (pAA) PCR amplification of chromosomal markers *eaeA* *stx1* *stx2* *astA*	 Positive Negative Negative Negative Negative Negative Negative Negative Negative Negative Positive Report results Report results Report results	 Positive Negative Negative Negative Negative Negative Negative Negative Negative Negative Positive Positive Positive Negative
OD_{260}/OD_{280} Ratio	1.7 to 2.1	1.9
Bacterial Inactivation 10% of total yield plated on agar[5,6]	No viable bacteria detected	No viable bacteria detected

[1]The bacterial preparation used for extraction of genomic DNA was produced by inoculation of BEI Resources NRS-11 (lot 3561935). Genomic DNA was extracted using proprietary technology.
[2]Also consistent with *Shigella* species.
[3]Kimata, K., et al. "Rapid Categorization of Pathogenic *Escherichia coli* by Multiplex PCR." Microbiol. Immunol. 49 (2005): 485-492. PubMed: 15965295.
[4]PCR was completed on DNA extracted from NR-11 lot 3560110 for NR-2648 lot 5107305.
[5]An extraction procedure was used that has been shown to consistently inactivate 100% of Gram-negative and Gram-positive bacteria.
[6]Plates were incubated for 14 days under propagation conditions.

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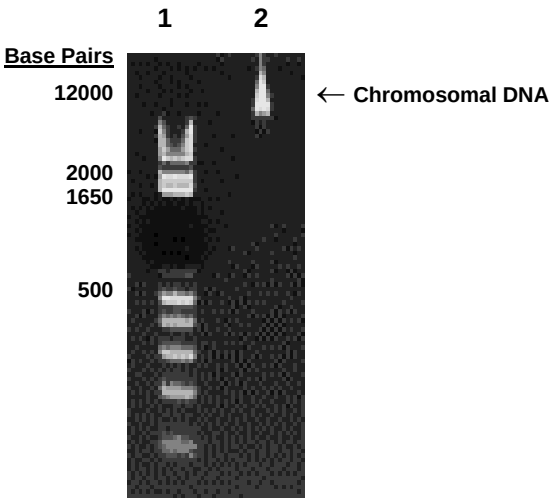
Figure 1: Agarose Gel Electrophoresis



Lane 1: Invitrogen™ 1Kb DNA Ladder™
Lane 2: 200 ng of NR-2648

Date: 23 MAR 2017

Signature:

BEI Resources Authentication

ATCC®, on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected to the tests and procedures specified and that the results described, along with any other data provided in this certificate, are true and accurate to the best of ATCC®'s knowledge.

Support Provided by NIAID

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