

Genomic DNA from *Escherichia coli*, Strain H10407

Catalog No. NR-2647

Product Description: Genomic DNA was isolated from a preparation of enterotoxigenic *Escherichia coli* (EPEC), strain H10407, serotype O78:H11.

Lot¹: 61012595

Manufacturing Date: 12JUN2012

TEST	SPECIFICATIONS	RESULTS
Genotypic Analysis Sequencing of 16S rRNA gene (~ 1480 base pairs) Sequencing of 16S rRNA gene (~ 430 base pairs) PCR amplification of plasmid markers ^{4,5} <i>elt</i> (pJY11) <i>esth</i> (pCS1) <i>estp</i> (pCS1) EAF (pEAF) <i>bfpA</i> (pEAF) <i>invE</i> (pINV) CVD432 (pAA) <i>aggR</i> (pAA) PCR amplification of chromosomal markers ^{4,5} <i>eaeA</i> <i>stx1</i> <i>stx2</i> <i>astA</i>	Consistent with <i>Escherichia coli</i> Identical to NR-4 Positive Positive Positive Negative Negative Negative Negative Negative Negative Negative Negative Negative Negative Negative Positive	Consistent with <i>Escherichia coli</i> ^{2,3} Identical to NR-4 Positive Positive Positive Negative Negative Negative Negative Negative Negative Negative Negative Negative Negative Negative Positive
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	1 µg in 26 µL per vial (0.04 µg/µL)
Functional Activity by PCR Amplification 16S ribosomal RNA gene Virulence markers ^{4,5} <i>elt</i> (pJY11) <i>esth</i> (pCS1) <i>estp</i> (pCS1) <i>astA</i> (chromosome)	~ 1500 bp amplicon ~ 263 bp amplicon ~ 179 bp amplicon ~ 123 bp amplicon ~ 106 bp amplicon	~ 1500 bp amplicon ~ 263 bp amplicon ~ 179 bp amplicon ~ 123 bp amplicon ~ 106 bp amplicon
OD₂₆₀/OD₂₈₀ Ratio	1.7 to 2.0	2.0

Bacterial Inactivation 10% of total yield plated on Tryptic Soy Agar with 5% defibrinated sheep blood ^{6,7}	No viable bacteria detected	No viable bacteria detected
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¹The bacterial preparation used for extraction of genomic DNA was produced by culture of BEI Resources NR-4 lot 3561329. Genomic DNA was extracted using proprietary technology.

²Also consistent with *Shigella* species

³≥ 99% identical to GenBank: FN649414 (*E. coli*, strain H10407)

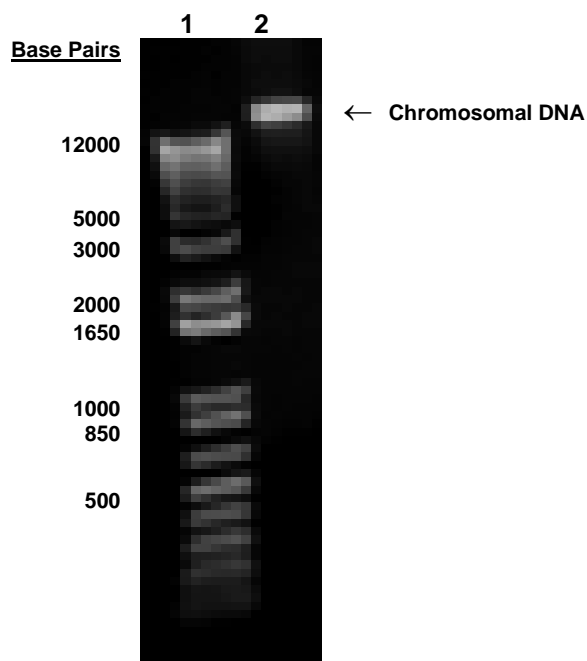
⁴PCR completed on NR-2647 lot 5107284 and NR-4 lot 3561329.

⁵Kimata, K., et al. "Rapid Categorization of Pathogenic *Escherichia coli* by Multiplex PCR." *Microbiol. Immunol.* 49 (2005): 485–492. PubMed: 15965295.

^{6,7} days at 37°C and aerobic atmosphere

⁷An extraction procedure was used that has been shown to consistently inactivate 100% of Gram-positive and Gram-negative bacteria.

Figure 1



Lane 1: Invitrogen™ TrackIt 1 Kb Plus DNA Ladder™
Lane 2: 200 ng of NR-2647

Date: 12 JUN 2013

Signature:

Title: Technical Manager, BEI Authentication or designee

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