

## **Certificate of Analysis for NR-4**

## Escherichia coli, Strain H10407

Catalog No. NR-4

(Derived from ATCC® 35401™)

**Product Description:** The enterotoxigenic *Escherichia coli* (ETEC) is a gram-negative, rod-shaped bacterium that produces both heat-labile and heat-stable enterotoxins in the gastrointestinal tract, resulting in diarrhea.

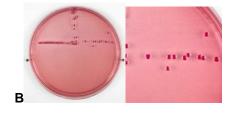
Lot<sup>1</sup>: 3561329 Manufacturing Date: 31MAR2004

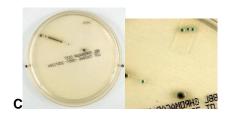
TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Gram-negative rods	Gram-negative rods
Colony morphology		
Tryptic soy agar	Circular, low convex, undulate, translucent	Circular, low convex, undulate, translucent
Hektoen enteric agar	Bright yellow-orange	Bright yellow-orange (see Figure 1A)
Sorbitol-MacConkey agar	Report results	Red (see Figure 1B)
CHROMagar™ O157	Report results	Blue (see Figure 1C)
Analytical profile index (API <sup>®</sup> 20 E)	Consistent with Escherichia coli	Consistent with Escherichia coli
Genotypic Analysis of Extracted Nucleic Acid		
Sequencing of 16S rRNA gene (~ 580 bp)	Consistent with Escherichia coli	Consistent with Escherichia coli
PCR amplification of plasmid markers		
elt (pJY11)	Report results	Positive
esth and/or estp (pCS1)	Report results	Positive
EAF (pEAF)	Negative	Negative
<i>bfpA</i> (pEAF)	Negative	Negative
invE (pINV)	Negative	Negative
CVD432 (pAA)	Negative	Negative
aggR (pAA)	Negative	Negative
PCR amplification of chromosomal markers		
astA	Report results	Positive
eaeA	Negative	Negative
stx1	Negative	Negative
sx2	Negative	Negative
Viability (post-freeze) <sup>3</sup>	Growth	Growth

<sup>&</sup>lt;sup>1</sup>NR-4 was produced by inoculation of ATCC<sup>®</sup> 35401<sup>™</sup> into Trypticase Soy broth (BD 211768).

Figure 1







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<sup>&</sup>lt;sup>2</sup>Also consistent with *Shigella* species.

<sup>&</sup>lt;sup>3</sup>16 hours at 37°C in an aerobic atmosphere in LB broth (ATCC® 60-2100).



## **Certificate of Analysis for NR-4**

Date: 18 MAR 2015 Signature:

Title: Technical Manager, BEI Authentication or designee

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