

Diarrheagenic *Escherichia coli* Virulence Target Ladder

Catalog No. NR-12150

This reagent is the tangible property of the U.S. Government.

Product Description: Diarrheagenic *Escherichia coli* (*E. coli*) are classified into several pathogenic groups based on their virulence characteristics. NR-12150 is a DNA ladder that can be used for identification of 12 *E. coli* virulence markers (sizes range from approximately 100 to 650 bps) that can be used to determine the diarrheagenic pathotype. The ladder includes a region of CVD432, *eaeA*, *aggR*, *stx2*, *stx1*, *invE*, *elt*, *bfpA*, *esth*, EAF, *estp*, and *astA* virulence markers that are found on the chromosome or on the plasmids of enterohemorrhagic, enteropathogenic, enterotoxigenic, enteroinvasive and enteroaggregative *E. coli* (EHEC, EPEC, ETEC, EIEC and EAggEC, respectively).

Lot: 58461511

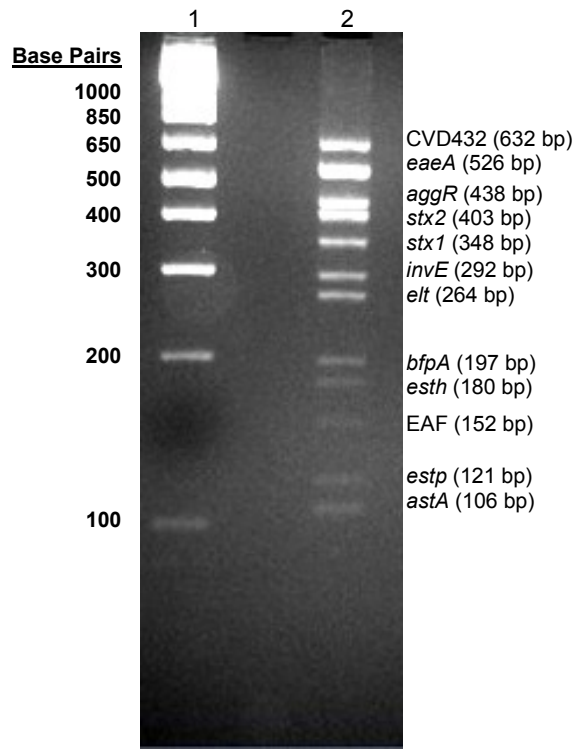
Manufacturing Date: 10FEB2009

TEST	SPECIFICATIONS	RESULTS
PCR Amplification (Figure 1) CVD 432 ¹ <i>eaeA</i> <i>aggR</i> ¹ <i>stx2</i> <i>stx1</i> <i>invE</i> <i>elt</i> <i>bfpA</i> ¹ <i>esth</i> ¹ EAF ¹ <i>estp</i> <i>astA</i> ¹	632 bp 526 bp 438 bp 403 bp 348 bp 292 bp 264 bp 197 bp 180 bp 152 bp 121 bp 106 bp	~ 632 bp ~ 526 bp ~ 438 bp ~ 403 bp ~ 348 bp ~ 292 bp ~ 264 bp ~ 197 bp ~ 180 bp ~ 152 bp ~ 121 bp ~ 106 bp
NCBI BLAST of Amplicon Sequence CVD 432 <i>eaeA</i> <i>aggR</i> <i>stx2</i> <i>stx1</i> <i>invE</i> <i>elt</i> <i>bfpA</i> <i>esth</i> EAF <i>estp</i> <i>astA</i>	Consistent with CVD 432 Consistent with <i>eaeA</i> Consistent with <i>aggR</i> Consistent with <i>stx2</i> Consistent with <i>stx1</i> Consistent with <i>invE</i> Consistent with <i>elt</i> Consistent with <i>bfpA</i> Consistent with <i>esth</i> Consistent with EAF Consistent with <i>estp</i> Consistent with <i>astA</i>	Consistent with CVD 432 Consistent with <i>eaeA</i> Consistent with <i>aggR</i> Consistent with <i>stx2</i> Consistent with <i>stx1</i> Consistent with <i>invE</i> Consistent with <i>elt</i> Consistent with <i>bfpA</i> Consistent with <i>esth</i> Consistent with EAF Consistent with <i>estp</i> Consistent with <i>astA</i>

¹The primers for CVD 432, *aggR*, *bfpA*, *esth*, EAF and *astA* are described in Kimata, K., et al. "Rapid Categorization of Pathogenic *Escherichia coli* by Multiplex PCR." *Microbiol. Immunol.* 49 (2005): 485-492. PubMed: 15965295. The primers for the remaining virulence markers were designed at BEI Resources.

Certificate of Analysis for NR-12150

Figure 1: NR-12150 on a 4% Agarose Gel



Lane 1: Invitrogen™ 1 Kb Plus DNA Ladder™

Lane 2: NR-12150

Date: 20 APR 2012

Signature: *Dorothy C. Young*

Title: Technical Manager, BEI Authentication or designee

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.

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