

Certificate of Analysis for NR-17630

Escherichia coli, Strain 5.0959

Catalog No. NR-17630

Product Description: Escherichia coli (E. coli), strain 5.0959 was isolated from an unknown host; it has been typed as a non-O157, Shiga toxin-producing E. coli (STEC) strain.

Lot¹: 60798948 Manufacturing Date: 16MAR2012

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Report results	Gram-negative rod
Colony morphology ²	Report results	Circular, low convex, entire translucent and cream (Figure 1)
Analytical profile index (API [®] 20 E)	Consistent with E. coli	Consistent with E. coli
Genotypic Analysis of Extracted Nucleic Acid		_
Sequencing of 16S ribosomal RNA gene (~ 1430 base pairs) PCR amplification of plasmid borne virulence markers ⁴	Consistent with E. coli	Consistent with E. coll ³
elt (pJY11)	Report results	Negative
esth and/or estp (pCS1)	Report results	Negative
EAF (pEAF)	Report results	Negative
bfpA (pEAF)	Report results	Negative
invE (pINV)	Report results	Negative
CVD432 (pAA)	Report results	Negative
aggR (pAÄ)	Report results	Negative
PCR amplification of chromosomal borne virulence markers ⁴		
astA .	Report results	Negative
eaeA	Report results	Positive
stx1	Report results	Negative
stx2	Report results	Positive
Viability (post-freeze) ²	Growth	Growth

¹E. coli, strain 5.0959 was deposited by C. DebRoy, Director, E. coli Reference Center, Department of Veterinary and Biomedical Sciences, College of Agricultural Sciences, The Pennsylvania State University, University Park, Pennsylvania. NR-17630 was produced by inoculation of the deposited material into Tryptic Soy Broth and grown 24 hours at 37°C and aerobic atmosphere. Broth inoculum was added to kolles which were grown 24 hours at 37°C and aerobic atmosphere to produce this lot.

⁴Performed using the Diarrheagenic *E. coli* 12-Target Multiplex PCR for Virulence Typing Assay (BEI Resources NR-13439); the primers for CVD432, *aggR*, *bfpA*, *esth*, EAF and *astA* are described in Kimata, K., et al. "Rapid Categorization of Pathogenic *Escherichia coli* by Multiplex PCR." <u>Microbiol. Immunol.</u> 49 (2005): 485-492. PubMed: 15965295.



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²24 hours at 37°C and aerobic atmosphere on Tryptic Soy Agar with 5% defibrinated sheep blood

³Also consistent with *Shigella* species



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Date: 09 MAY 2013

Signature:

Title:

Technical Manager, BEI Authentication or designee

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