

Escherichia coli, Strain 4.0522

Catalog No. NR-17627

Product Description: *Escherichia coli* (*E. coli*), strain 4.0522 was isolated from a cow; it is referred to as a non-O157, Shiga toxin-producing *E. coli* (STEC) strain.

Lot¹: 61086682

Manufacturing Date: 29JUN2012

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology Colony morphologies ^{2,3} Analytical profile index (API [®] 20 E)	Gram-negative rods Report results Consistent with <i>E. coli</i>	Gram-negative rods Colony type 1: Circular, convex, entire, smooth and gray (Figure 1) Colony type 2: Irregular, flat, smooth and gray (Figure 2) Consistent with <i>E. coli</i>
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (1465 base pairs) Riboprinter [®] Microbial Characterization System	≥ 99% sequence identity to <i>E. coli</i> , strain 4.0522 (GenBank: AEZU02000105) ≥ 85% <i>E. coli</i>	99.5% sequence identity to <i>E. coli</i> , strain 4.0522 (GenBank: AEZU02000105) ⁴ <i>E. coli</i> (97%)
PCR Assay of Extracted DNA 16S ribosomal RNA gene PCR amplification of chromosomal borne virulence markers <i>stx1</i> <i>stx2</i>	~ 1500 base pair amplicon Positive Positive	~ 1500 base pair amplicon Positive Positive
Viability (post-freeze)²	Growth	Growth

¹*E. coli*, strain 4.0522 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, USA. NR-17627 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.

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

³Two colony types were observed. Plating of the individual colony types showed that they did not revert to a mixed colony type. The 16S ribosomal RNA gene of each colony type was sequenced and found to be consistent with *E. coli*.

⁴Also consistent with *Shigella* species

Figure 1



Figure 2



Date: 22 APR 2014

Signature:



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