

***Escherichia coli*, Strain JJ1887**

Catalog No. NR-51487

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Product Description:

Escherichia coli (*E. coli*), strain JJ1887 was isolated in 2007 from a woman with recurrent cystitis. NR-51487 was produced by inoculation of the BEI Resources lot 70021690 into Tryptic Soy broth and grown for 1 day at 37°C in an aerobic atmosphere. Broth inoculum was added to Tryptic Soy agar kolles, which were grown for 1 day at 37°C in an aerobic atmosphere to produce this lot. Quality control testing was completed under propagation conditions unless otherwise noted.

Lot: 70058037

Manufacturing Date: 10FEB2023

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TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology Colony morphology Motility (wet mount) VITEK® MS (MALDI-TOF)	Gram-negative rods Report results Report results <i>E. coli</i>	Gram-negative rods Circular, convex, entire, smooth and cream (Figure 1) Motile <i>E. coli</i> (99%)
Antibiotic Susceptibility Profile¹ Etest® antibiotic test strips 1 day at 35°C in an aerobic atmosphere on Mueller Hinton II agar Cefepime Ceftazidime Doxycycline Polymyxin B VITEK® (AST-GN69 Card) ESBL Amoxicillin/Clavulanic Acid Ampicillin Ampicillin/Sulbactam Cefazolin Ceftriaxone Ciprofloxacin Ertapenem Gentamicin Imipenem Levofloxacin Nitrofurantoin Piperacillin/Tazobactam Tobramycin Trimethoprim/Sulfamethoxazole	Sensitive Sensitive Resistant Report results Positive Resistant Resistant Resistant Resistant Resistant Resistant Resistant Sensitive Resistant Sensitive Resistant Sensitive Resistant Sensitive Resistant Resistant	Intermediate (4 to 8 µg/mL) ^{2,3} Sensitive (3 µg/mL) ² Resistant (64 µg/mL) 0.5 µg/mL ⁴ Positive Resistant (≥ 32 µg/mL) Resistant (≥ 32 µg/mL) Resistant (≥ 32 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 4 µg/mL) Sensitive (≤ 0.5 µg/mL) Resistant (≥ 16 µg/mL) Sensitive (≤ 0.25 µg/mL) Resistant (≥ 8 µg/mL) Sensitive (≤ 16 µg/mL) Sensitive (8 µg/mL) Resistant (≥ 16 µg/mL) Resistant (≥ 320 µg/mL)
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1480 base pairs)	≥ 99% sequence identity to <i>E. coli</i> , strain JJ1887 (GenBank: CP014316.1)	99.8% sequence identity to <i>E. coli</i> , strain JJ1887 (GenBank: CP014316.1)

TEST	SPECIFICATIONS	RESULTS
Purity (post-freeze) 8 days at 37°C in an aerobic atmosphere with and without 5% CO ₂ on Tryptic Soy agar	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
Viability (post-freeze)	Growth	Growth

¹Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S28 (2018).

²Because *E. coli*, strain JJ1887 is a confirmed ESBL-producer, CSLI recommendations are to modify the interpretation of ceftazidime and cefepime based on the susceptibilities of other antibiotics in the same class, suggesting that this isolate is resistant to ceftazidime and cefepime.

³The susceptibility result for this antibiotic is within one doubling dilution of specification, which is considered an equivalent result.

⁴CLSI does not have published polymyxin B MIC breakpoints for *E. coli*. Isolates are defined only as wild type or non-wild type. For more information, please refer to Chew, K. L., et al. "Colistin and Polymyxin B Susceptibility Testing for Carbapenem-Resistant and *mcr*-Positive Enterobacteriaceae: Comparison of Sensititre, MicroScan, Vitek 2, and Etest with Broth Microdilution." *J. Clin. Microbiol.* 55 (2017): 2609-2616. PubMed: 28592552.

Figure 1: Colony Morphology



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30 JAN 2024

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