

***Salmonella enterica* subsp. *enterica*, Strain BL53977 (Serovar Typhi)**

**Catalog No. NR-51630**

**Product Description:**

*Salmonella enterica* (*S. enterica*) subsp. *enterica*, strain BL53977 (serovar Typhi) was isolated in 2016 from human blood in Hyderabad, Sindh Province, Pakistan. *S. enterica* subsp. *enterica*, strain BL53977 (serovar Typhi) is an H58-lineage isolate deposited as resistant to carbapenem, cefixime, chloramphenicol, ciprofloxacin and sulfamethoxazole/trimethoprim, and susceptible to azithromycin, cefotaxime, ertapenem and-meropenem.

**Lot: 70026679<sup>1</sup>**

**Manufacturing Date: 28JUN2019**

TEST	SPECIFICATIONS	RESULTS
<b>Phenotypic Analysis</b> Cellular morphology Colony morphology <sup>2</sup>  Motility Biochemical tests: Production of hydrogen sulfide Production of indole VITEK® 2 Compact (GN Card)	Gram-negative rods Report results  Report results  Positive Negative <i>Salmonella</i> serovar Typhi (≥ 95%)	Gram-negative rods Irregular, flat, undulate, smooth and gray (Figure 1) Motile <sup>3</sup>  Positive <sup>3</sup> Negative <sup>3</sup> <i>Salmonella</i> serovar Typhi (99%) <sup>4</sup>
<b>Antibiotic Susceptibility Profile<sup>5</sup></b> VITEK® (AST-GN69 Card) Ampicillin Amoxicillin/Clavulanic Acid Ampicillin/Sulbactam Cefazolin Ceftazidime Ceftriaxone Cefepime Ciprofloxacin Ertapenem Gentamicin Imipenem Levofloxacin Nitrofurantoin Piperacillin/Tazobactam Trimethoprim/Sulfamethoxazole Tobramycin Etest® antibiotic test strips <sup>6</sup> Azithromycin Cefixime Chloramphenicol	Report results Report results Report results Report results Report results Report results Report results Resistant Sensitive Report results Report results Report results Report results Report results Report results Resistant Report results  Sensitive Resistant Resistant	Resistant (≥ 32 µg/mL) Intermediate (16 µg/mL) Resistant (≥ 32 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 64 µg/mL) Resistant (2 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (≤ 1 µg/mL) Sensitive (≤ 0.25 µg/mL) Resistant (4 µg/mL) Intermediate (64 µg/mL) Intermediate (32 µg/mL) Resistant (≥ 320 µg/mL) Sensitive (≤ 1 µg/mL)  Sensitive (3 µg/mL) Resistant (256 µg/mL) Resistant (256 µg/mL)
<b>Genotypic Analysis</b> Sequencing of 16S ribosomal RNA gene (~ 1480 base pairs)	≥ 99% sequence identity to <i>S. enterica</i> subsp. <i>enterica</i> (serovar Typhi) type strain (GenBank: AE014613.1)	99.9% sequence identity to <i>S. enterica</i> subsp. <i>enterica</i> (serovar Typhi) type strain (GenBank: AE014613.1)
<b>Serogroup Verification</b>	Serogroup D (factor 9)	Serogroup D (factor 9) <sup>7</sup>
<b>Purity (post-freeze)<sup>8</sup></b>	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
<b>Viability (post-freeze)<sup>3</sup></b>	Growth	Growth

<sup>1</sup>NR-51630 was produced by inoculation of the deposited material into Nutrient broth and grown for 1 day at 37°C in an aerobic atmosphere. Broth inoculum was added to Tryptic Soy agar with 5% defibrinated sheep blood kolles, which were grown for 1 day at 37°C in an aerobic atmosphere to produce this lot.

<sup>2</sup>1 day at 37°C in an aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood

<sup>3</sup>Test performed in Hardy Diagnostics™ SIM (Sulfide, Indole, Motility) Medium after 1 day at 37°C in an aerobic atmosphere.

<sup>4</sup>Percent probabilities above 90% indicate a close match to the typical biochemical pattern for the given organism. For additional information, please refer to O'Hara, C. M. and J. M. Miller. "Evaluation of the VITEK 2 ID-GNB Assay for Identification of Members of the Family *Enterobacteriaceae* and Other Nonenteric Gram-Negative Bacilli and Comparison with the VITEK GNI+ Card." *J. Clin. Microbiol.* 41 (2003): 2096-2101. PubMed: 12734254.

<sup>5</sup>Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S28 (2018)

<sup>6</sup>1 day at 37°C in an aerobic atmosphere on Mueller Hinton agar

<sup>7</sup>Serogroup D contains serovar Typhi in addition to other serovars.

<sup>8</sup>Purity of this lot was assessed for 7 days at 37°C in an aerobic atmosphere with and without 5% CO<sub>2</sub> on Tryptic Soy agar with 5% defibrinated sheep blood.

Figure 1: Colony Morphology



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Heather Couch

30 SEP 2019

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