

Staphylococcus aureus, Strain No. 426

Catalog No. NR-46010

Product Description:

Staphylococcus aureus (*S. aureus*), strain No. 426 was isolated in 1968 from a burn case in the United Kingdom. *S. aureus*, strain No. 426 was deposited to BEI Resources as part of the NARSA collection, as negative for *mecA*; MLST sequence type (ST) 30; eGenomic spa type 43, eGenomic spa repeats WGKAKAOMQ; Ridom spa type t021; and resistant to ampicillin, chloramphenicol, penicillin and streptomycin. NR-46010 was produced by inoculation of the deposited material into Tryptic Soy 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.

Lot: 70072951

Manufacturing Date: 06DEC2024

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TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology 1 day at 37°C in an aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood Colony morphology 1 day at 37°C in an aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood Motility (wet mount) Hemolysis 1 day at 37°C in an aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood Biochemical characterization: Catalase Coagulase ¹ VITEK® MS (MALDI-TOF)	Gram-positive cocci Report results Report results Report results Positive Report results <i>S. aureus</i>	Gram-positive cocci Circular, convex, entire, smooth and cream (Figure 1) Non-motile β-hemolytic Positive Positive <i>S. aureus</i> (99.9%)
Antibiotic Susceptibility Profile² Cefinase™ Paper Disc Beta-lactamase VITEK® (AST-GP78 card) Benzylpenicillin Cefoxitin screen Ciprofloxacin Clindamycin Clindamycin (inducible resistance) Daptomycin Erythromycin Gentamicin Levofloxacin Linezolid Minocycline Moxifloxacin Nitrofurantoin Oxacillin Rifampicin Tetracycline	Report results Resistant Report results Sensitive Resistant Report results Report results Resistant Sensitive Report results Sensitive Report results Report results Sensitive Report results Report results Sensitive Report results Report results	Positive Resistant (≥ 0.5 µg/mL) Negative Sensitive (1 µg/mL) Sensitive (0.25 µg/mL) Negative Sensitive (0.25 to 0.5 µg/mL) Sensitive (≥ 0.25 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (0.25 µg/mL) Sensitive (2 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (≤ 0.25 µg/mL) Sensitive (≤ 16 µg/mL) Sensitive (0.5 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (2 µg/mL)

Certificate of Analysis for NR-46010

TEST	SPECIFICATIONS	RESULTS
Tigecycline Trimethoprim/sulfamethoxazole Vancomycin Etest® antibiotic test strips 1 day at 37°C in an aerobic atmosphere on Mueller Hinton agar Chloramphenicol Quinupristin/dalfopristin Teicoplanin	Report results Report results Sensitive Resistant Sensitive Sensitive	Sensitive (0.25 µg/mL) ³ Sensitive (≤ 10 µg/mL) Sensitive (1 µg/mL) Sensitive (2 to 3 µg/mL)⁴ Sensitive (0.25 µg/mL) Sensitive (0.38 µg/mL)
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1460base pairs)	≥ 99% sequence identity to <i>S. aureus</i> , strain No. 426 (GenBank: L37597.1)	≥ 100% sequence identity to <i>S. aureus</i> , strain No. 426 (GenBank: L37597.1) ⁵
Purity (post-freeze) 7 days at 37°C in an aerobic atmosphere with 5% CO ₂ on Tryptic Soy agar with 5% defibrinated sheep blood	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
Viability (post-freeze) 1 day at 37°C in an aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood	Growth	Growth

¹4 hours at 37°C in rabbit serum with 0.15% EDTA (Coagulase Plasma BBL™ 240827)

²Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S28 (2018)

³MIC Interpretation Guideline: EUCAST Version 4.0 (2014)

⁴*S. aureus*, strain No. 426 was deposited as resistant to chloramphenicol but showed an MIC of 2 µg/mL to 3 µg/mL (interpreted as sensitive) for this antibiotic during QC testing. Testing was performed in duplicate.

⁵Also consistent with other *Staphylococcus* species

Figure 1: Colony Morphology



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23 APR 2025

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