

Staphylococcus aureus, *S. aureus* ATCC 49525 (Xen36)

Product Number: 119243

Material Provided: 1 Agar Plate

Storage Conditions: -80°C

Genetic Characteristics

Staphylococcus aureus Xen36 was derived from the parental strain *Staphylococcus aureus* ATCC 49525 (Wright), a clinical isolate from bacteremia patient. *S. aureus* Xen 36 possesses a stable copy of the modified *Photorhabdus luminescens luxABCDE* operon at a single integration site on a native plasmid.

Growth Characteristics

S. aureus Xen36 grows well in various media including Brain Heart Infusion (BHI), Trypticase Soy Broth (TSB), and Luria Bertani (LB) at 37°C under ambient aeration. *S. aureus* Xen36 may also be grown selectively on medium containing 200 µg/ml kanamycin.

Colonial Morphology

On TSA agar plate, *S. aureus* Xen36 appears as small (~1.5mm), cream-colored, opaque, smooth, circular colonies.

Growth Curve

Log-phase growth can be achieved after 1.5 to 3 hours of subculture in TSB broth at 37°C with aeration at 200 rpm. An absorbance measurement at 600 nm (against a TSB blank) of 0.5 is roughly equivalent to 1.0×10^8 cfu/ml of *S. aureus* Xen36.

Virulence Factors

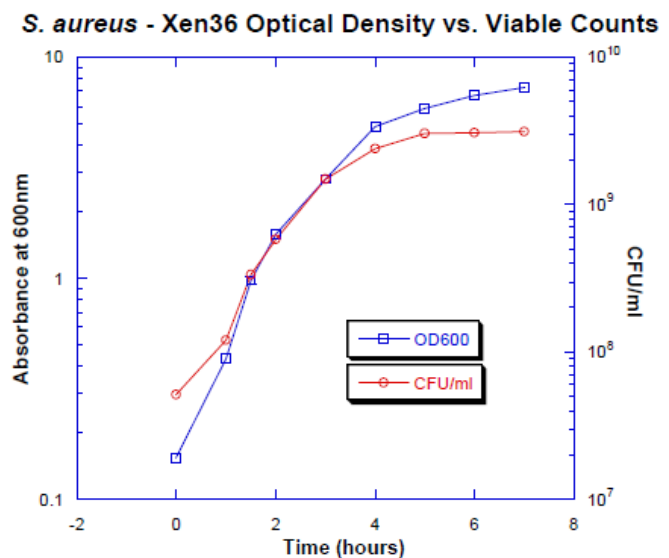
Capsule: Serotype 8.

DNAse: Positive.

NaCl: Tolerant via growth on Mannitol Salts Agar.

Coagulase: Positive in 4hrs.

mecA: negative



Biochemical Profile

A biochemical profile was obtained for *S. aureus*-Xen36 using the api 20 STAPH system available from bioMérieux.

Sugar Utilization		Other Tests	
D-Glucose	+	Nitrate Reduction	+
D-Fructose	+	Alkaline Phosphatase	+
D-Mannose	+	Voges Proskauer	-
Maltose	+	α -methyl-D-glucoside	-
Lactose	+	N-acetyl-glucosamine	+
Trehalose	+	Arginine dihydrolase	+
D-Mannitol	+	Urease	+
Xylitol	-		
Raffinose	-		
Xylose	-		
D-Melibiose	-		
Sucrose	+		

Antibiotic Susceptibility

Disk Diffusion Data Disk diffusion tests were performed according to methods outlined in the NCCLS Approved Standard M2-A7.

Kirby-Bauer Disk Diffusion Test	
Sensitive to:	Resistant to:
Ciprofloxacin 5 μ g	Kanamycin 30 μ g
Clindamycin 2 μ g	Penicillin 10 IU
Oxacillin 1 μ g	
Sulfamethoxazole 23.75 μ g / Trimethoprim 1.25 μ g	
Tetracycline 30 μ g	
Chloramphenicol 30 μ g	
Vancomycin 30 μ g	
Gentamycin 10 μ g	

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