Caution: Research use only. Not for use in diagnostic procedures.

Staphylococcus aureus

Staphylococcus aureus ATCC 49525 (Xen36)

Product No.: 119243

Material Provided: 1 Agar Plate *(plate not intended for long-term storage)*
Storage Conditions: -80°C in appropriate temperature rated vial **ONLY**. Refer to **Bacterial Growth Guidelines** for more detailed instructions (included in shipment and available at www.perkinelmer.com/microorganisms)

In vitro Characteristics

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 37ºC under ambient aeration. *S. aureus* Xen36 may also be grown selectively on medium containing 200 µg/ml kanamycin.

Colonial Morphology

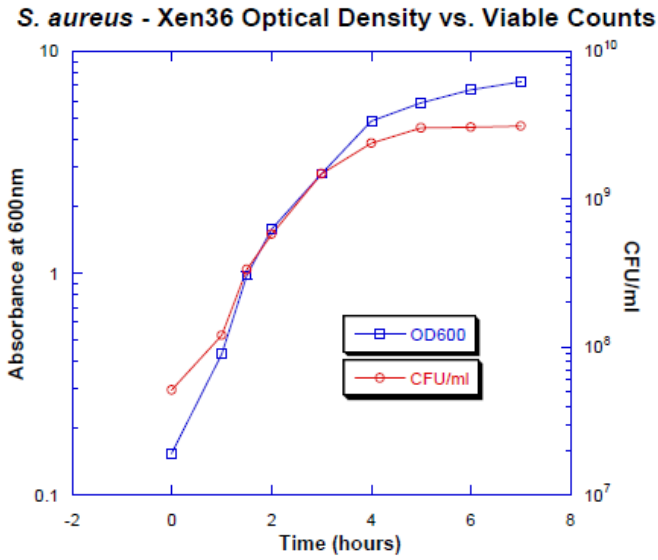
On TSA agar plate, *S. aureus* Xen36 appears as small (~1.5mm), cream-colored, opaque, smooth, circular colonies.

Virulence Factor

Capsule: Serotype 8.
DNAse: Positive.
NaCl: Tolerant via growth on Mannitol Salts Agar.
Coagulase: Positive in 4hrs.
mecA: negative

Growth Curve

Log-phase growth can be achieved after 1.5 to 3 hours of subculture in TSB broth at 37ºC with aeration at 200 rpm. An absorbance measurement at 600 nm (against a TSB blank) of 0.5 is roughly equivalent to 1.0x108 cfu/ml of *S. aureus* Xen36.



Biochemical Profile

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

Sugar Utilization	
D-Glucose	+
D-Fructose	+
D-Mannose	+
Maltose	+
Lactose	+
Trehalose	+
D-Mannitol	+
Xylitol	-
Raffinose	-
Xylose	-
D-Melibiose	-
Sucrose	+

Other Tests	
Nitrate Reduction	+
Alkaline Phosphatase	+
Voges Proskauer	-
α-methyl-D-glucoside	-
N-acetyl-glucosamine	+
Arginine dihydrolase	+
Urease	+

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 µg	Kanamycin 30µg
Clindamycin 2 µg	Penicillin 10 IU
Oxacillin 1 µg	
Sulfamethoxazole 23.75µg / Trimethoprim 1.25 µg	
Tetracycline 30 µg	
Chloramphenicol 30 µg	
Vancomycin 30 µg	
Gentamycin 10 µg	

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References

1. Journal of Bacteriology, 2007, 8079-8087, Vol. 189, No. 22
2. J Immunol. 2007 Nov 1; 179 (9):6160-8

Product Information

Warranty

PerkinElmer warrants that cells will be viable upon shipment from PerkinElmer for a period of thirty days, provided they have been properly stored and handled during this period.

Disclaimers

This product is sold for *in vivo* animal research use only and is not for use in any diagnostic procedures. Excluding purchases by authorized PerkinElmer distributors, this product is sold for use by the original purchaser and is not for resale.

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