

Caution: For Research Use. This product is intended for animal research only and not for use in humans. Not for human or animal therapeutic or diagnostic use.

Staphylococcus aureus *S. aureus* ATCC 12600 (Xen29)

Product No.: 119240

Material Provided: 1 Agar Plate

Storage Conditions: -80°C

In vitro Characteristics

Genetic Characteristics

Staphylococcus aureus Xen29 was derived from the parental strain *S. aureus* 12600, a pleural fluid isolate, which is also designated as NCTC8532. *S. aureus* Xen29 possesses a stable copy of the modified *Photobacterium luminescens luxABCDE* operon at a single integration site on the bacterial chromosome.

Growth Characteristics

S. aureus Xen29 grows well in various media including Luria Bertani (LB), Brain Heart Infusion (BHI), and Nutrient Broth (NB) at 37°C under ambient aeration. *S. aureus* Xen 29 may also be grown selectively on medium containing 200 µg/ml kanamycin.

Colonial Morphology

On LB agar, *S. aureus* Xen29 appears as small (~1.5mm), cream-colored, opaque, smooth, circular colonies.

Virulence Factor

Hemolysis: β-hemolysis on TSA + 5% sheep blood

Capsule: Serotype 3 (NCTC type strain).

DNase: Positive.

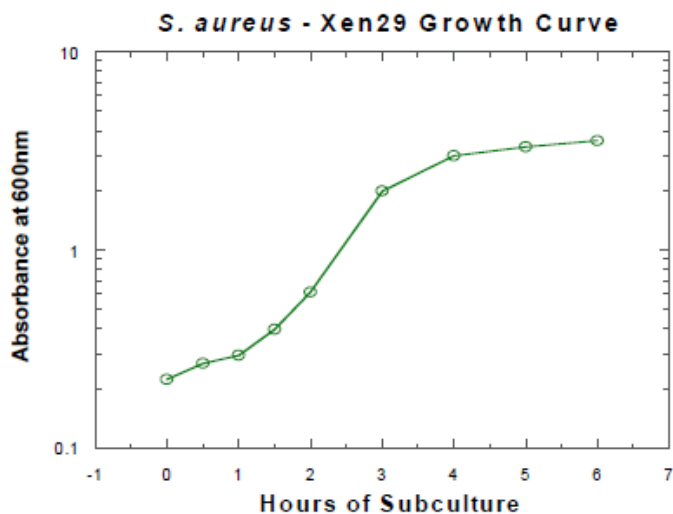
NaCl: Tolerant via growth on Mannitol Salts Agar.

Coagulase: Positive in 24hrs.

mecA: negative

Growth Curve

Log-phase growth can be achieved after 2 to 3 hours of subculture in LB broth at 37°C, shaking at 200rpm. An absorbance measurement at 600nm (against a LB blank) of 0.5 is roughly equivalent to 1.44×10^8 cfu/ml of *S. aureus* Xen 29.



Biochemical Profile

A biochemical profile was obtained for *S. aureus* Xen 29 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:
Carbenicillin 100	Kanamycin
Gentamicin 20	
Penicillin G 10U	
Vancomycin 30	

References

1. J Biomed Mater Res B Appl Biomater. July 2008
2. Microbes and Infection, Vol. 10, Issue 3, March 2008, 217-223
3. J Orthop Res. 2008 Jan; 26(1):96-105
4. J Biol Phys 2008 Vol. 33:61-66
5. Antimicrobial Agents & Chemotherapy, May 2007, 51(5) 1787-1794
6. Antimicrobial Agents & Chemotherapy, May 2007, 51(5) 1787-1794
7. Antimicrobial Agents & Chemotherapy, May 2007, 51(5) 1787-1794

PerkinElmer, Inc.
940 Winter Street
Waltham, MA 02451 USA
P: (800) 762-4000 or
(+1) 203-925-4602
www.perkinelmer.com

For more information, please visit our website:
www.perkinelmer.com/microorganisms.

MIC and MBC Data

MIC and MBC were determined using the macrodilution methods specified in the NCCLS Approved Standard M7-A5.

NCCLS Macrodilution MIC/MBC		
Antibiotic	MIC ($\mu\text{g/mL}$)	MBC ($\mu\text{g/mL}$)
Ceftriaxone	8.0	32
Ciprofloxacin	4.0	8.0
Erythromycin	2.0	>16*
Gentamicin	R up to 16	n/a
Penicillin G	0.125	0.25
Tetracycline	0.5	>16

* trailing endpoint.

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.

8. Antimicrobial Agents & Chemotherapy, May 2007, 51(5) 1787-1794
9. Photochem. Photobiol. Sci., 2006, 5, 31 – 38
10. Journal of Antimicrobial Chemotherapy, Apr. 2005, Vol. 55, No. 4, 528-534
11. Antimicrobial Agents & Chemotherapy, June 2004 2283-2287
12. Antimicrobial Agents & Chemotherapy, June 2004, Vol. 48, No. 6, 2283-2287
13. Infection & Immunity, Feb. 2003, Vol. 71, No. 2, 882-890
14. Antimicrobial Agents & Chemotherapy, Oct. 2003, Vol. 47, No. 10, 3130-313



For a complete listing of our products, visit www.perkinelmer.com.

Copyright ©2015, PerkinElmer, Inc. All rights reserved. PerkinElmer® is a registered trademark of PerkinElmer, Inc. All other trademarks are the property of their respective owners.