TECHNICAL DATA SHEET

Light Producing Microorganisms

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 I6-MRSA (Xen30)

Product No.: 119241

Material Provided: 1 Agar Plate
Storage Conditions: -80°C

In vitro Characteristics

Genetic Characteristics

Staphylococcus aureus Xen30 was derived from the parental strain *S. aureus* I6, a clinical MRSA isolate from Roche. *S. aureus.* Xen30 possesses a stable copy of the modified *Photorhabdus luminescens luxABCDE* operon at a single integration site on the bacterial chromosome.

Growth Characteristics

S. aureus Xen30 grows well in various media including Luria Bertani (LB), Brain-Heart Infusion (BHI), and Nutrient Broth (NB) at 37ºC under ambient aeration. *S. aureus* Xen 30 may also be grown selectively on medium containing 200 µg/ml kanamycin.

Colonial Morphology

On BHI agar plate, *S. aureus* Xen 30 appears as small (~1.5mm), cream-colored, opaque, smooth, circular colonies.

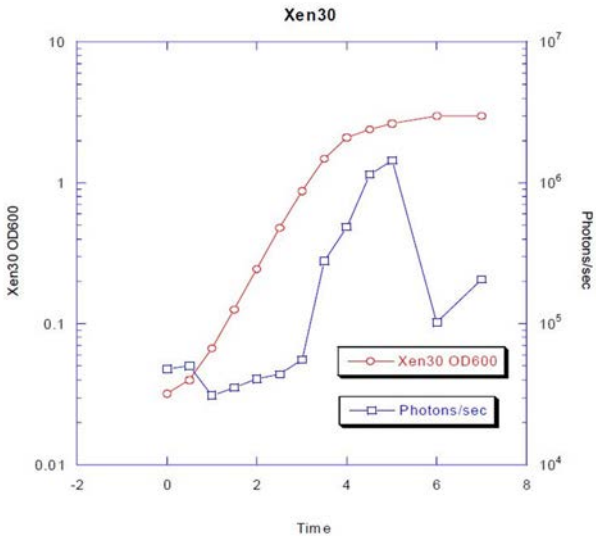
Virulence Factor

Hemolysis: β-hemolysis on TSA + 5% sheep blood
DNAse: Positive.
NaCl: Tolerant via growth on Mannitol Salts Agar.
Coagulase: Positive in 24 hrs.

MIC to Oxicillin (E-test): >256 µg/ml.
mecA: positive

Growth Curve

Log-phase growth can be achieved after 1.5 to 2 hours of subculture in BHI broth at 37ºC, shaking at 200 rpm. An absorbance measure-ment at 600nm (against a BHI blank) of 0.8 is roughly equivalent to $3.7x10^7$ cfu/ml of *S. aureus* Xen 30.



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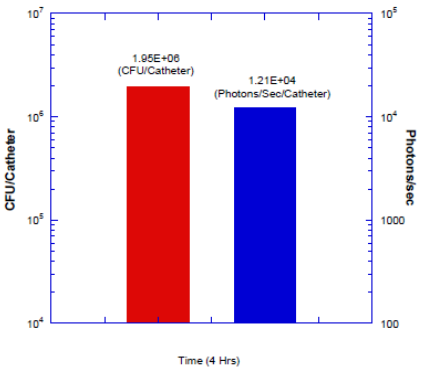
In vitro Catheter Assay

Teflon catheter (0.5-cm in length) was incubated with about 106 culture (OD600=0.1) in eppendorf tube with TSBG broth (TSB+0.25% Glucose) at 37ºC. The catheter was removed after 4 hr incubation and washed once. After imaging the catheter using IVIS, the attached bacteria were removed from catheter by mild sonication and enumerated by plating.



Biochemical Profile

A biochemical profile was obtained for *Streptococcus pneumoniae*–Xen11 using the api 20 Strep 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:
Vancomycin 30	Carbenicillin 100
SXT	Gentamicin 10
	Kanamycin 30
	Penicillin 10
	Streptomycin 50
	Tetrcycline 30

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.

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

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