

Pseudomonas aeruginosa, P. aeruginosa ATCC 19660 (Xen5)

Product Number: 119228

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

Genetic Characteristics

Pseudomonas aeruginosa Xen 5 was derived from the parental strain *P. aeruginosa* ATCC 19660, a mucoid clinical strain isolated from human septicemia in Lima, Peru. *P. aeruginosa* Xen 5 was engineered through conjugation and transposition of plasmid carrying transposon Tn5 *luxCDABE*. *P. aeruginosa* Xen5 possesses a single stable copy of the *P. luminescens lux* operon on the bacterial chromosome.

Growth Characteristics

P. aeruginosa Xen 5 grows well in various media including Luria Bertani (LB), Nutrient Broth (NB) and Brain Heart Infusion (BHI) without antibiotic selection at 37°C under ambient aeration. Alternatively, *P. Aeruginosa* Xen 5 may be grown selectively in medium/agar containing 60 µg/ml tetracycline to prevent contamination.

Colonial Morphology

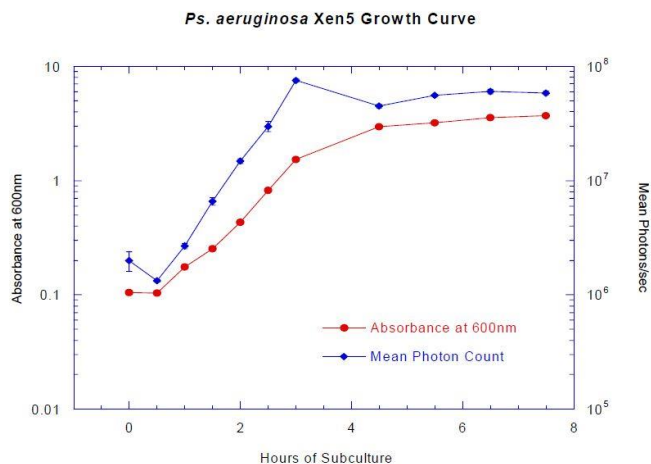
On agar plates, *P. aeruginosa* Xen 5 appears as large (3-5mm), yellow-green, irregularly round, mucoid colonies with butyrous centers after 24 hours incubation at 37°C.

Growth Curve

P. aeruginosa Xen 5 displays peak bioluminescence during log-phase growth, which can be achieved after 1.5 hours of subculture in LB broth at 37°C with aeration at 200rpm. An absorbance measurement at 600 nm (against a LB blank) of 1.0 is roughly equivalent to 7.5×10^8 cfu/ml of *P. aeruginosa* Xen 5.

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 (µg/mL)	MBC (µg/mL)
Ceftriaxone	31.25	125
Gentamicin	1.0	1.0
Tetracycline	>125	>125

Biochemical Profile

A biochemical profile was obtained for *P. aeruginosa* Xen 5 using the api 20NE system available from bioMérieux.

Assimilation		Other Tests	
Glucose	+	Nitrate Reduction	NO ₂
Arabinose	-	Indole Production	-
Mannose	-	Glucose Ferment	-
Mannitol	+	Arginine Dihydrolase	+
N-acetyl-glucosamine	+	Urease	+
Maltose	-	α-glucosidase	+
Gluconate	+	Protease (gelatin)	+
Caprate	+	α-galactosidase	-
Adipate	+	Oxidase	+
Malate	+		
Citrate	+		
Phenyl-acetate	-		

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
	Chloramphenicol 30 (intermediate)
	Tetracycline 30
	Trimethoprim/sulfamethoxazole

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119228-R REV01