

Light Producing Microorganisms

Listeria monocytogenes, L. monocytogenes ATCC 23074 (Xen19)

Product Number: 119237

Material Provided: 1 Agar Plate

Storage Conditions: -80°C

Genetic Characteristics

Listeria monocytogenes Xen 19 was derived from the parental strain *L. monocytogenes* ATCC23074, which was deposited by Stanford University as AT-25. *L.monocytogenes* Xen 19 possesses a stable copy of the modified *Photorhabdus luminescens lux* operon at a single integration site on the bacterial chromosome.

Growth Characteristics

L. monocytogenes Xen 19 grows well in Brain-Heart Infusion (BHI) broth at 37°C. It may also be grown on Trypticase Soy Agar (TSA). *L. monocytogenes* Xen 19 may be grown selectively on LB agar containing 200 mg/mL kanamycin.

Colonial Morphology

On TSA + 5% sheep blood plates, *L. monocytogenes* Xen 19 appears as small (approx 0.5mm), circular, gray colonies with large zones of beta hemolysis.

OD 600

Growth Curve

Log-phase growth can be achieved after 1-3 hours of subculture in BHI broth at 37°C, shaking at 200 rpm. For these broth culture conditions, an absorbance measurement at 600 nm (against a BHI blank) of 1 is roughly equivalent to 4x108 cfu/ml of *L. monocyte-genes* Xen 19 and the relative light intensity is 0.005 photons/sec/cell.

Virulence Factors

Hemolysins: □-hemolytic on TSA + 5% sheep blood Bacitracin: Susceptible



Biochemical Profile

A biochemical profile was obtained for *Listeria monocytogenes*-Xen19 using the api 20 Strep system available from bioMérieux.

Sugar Utilization	Other Tests	
Ribose	Voges Proskauer	
Arabinose	Hippurate	
Mannitol	Esculin	
Sorbitol	Pyrrolidone Arylamidase	
Lactose	D-galactosidase	
Trehalose	□-glucuronidase	
Inuline	□-galactosidase	
Raffinose	Alkaline Phosphatase	
Starch	Leucine Arylamidase	
Glycogen	Arginine Dihydrolase	
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Revvity, Inc. 940 Winter Street Waltham, MA 02451 USA

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