# 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.

# Listeria monocytogenes L. monocytogenes ATCC23074 (Xen19)

**Product No.: 119237** 

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

#### In vitro Characteristics

#### **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.

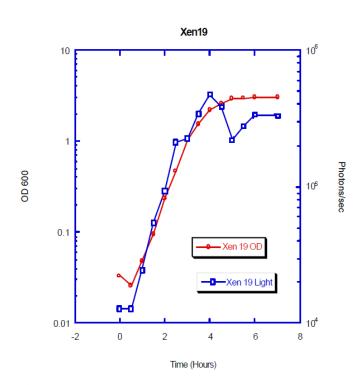
## **Colonial Morphology**

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.

#### **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:**  $\beta$ -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	
Ribose	
Arabinose	
Mannitol	
Sorbitol	
Lactose	
Trehalose	
Inuline	
Raffinose	
Starch	
Glycogen	

Other Tests	
Voges Proskauer	
Hippurate	
Esculin	
Pyrrolidone Arylamidase	
α-galactosidase	
β-glucuronidase	
β-galactosidase	
Alkaline Phosphatase	
Leucine Arylamidase	
Arginine Dihydrolase	

#### References

1. Park and Stewart. 1990 Gene 94:129-32.

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

## **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**

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



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