



Paradigm Diagnostics *Listeria* Indicator Broth (PDX-LIB) User Guide

***Listeria* species Test Kit**

Catalog Number:

25003-25

25004-100

25005-100

25009-50

Intended Use

Paradigm Diagnostics *Listeria* indicator broth (**PDX-LIB**) is intended to be used in the food processing environment and on food contact surfaces to detect the presence of *Listeria* species. A color change from yellow to light brown/black is considered presumptive positive. Applicability of PDX-LIB is limited for selected common *Listeria* spp (*Listeria monocytogenes*, *L. innocua*, *L. ivanovii*, and *L.welshmeri*) on selected common surface types (Sealed concrete, ceramic tile, stainless steel, and plastic). **AOAC-RI PTM validation studies were conducted at 4 inch x 4-inch surface areas.**

Scientific Principle of the Test

PDX-LIB contains a patented formula of antibiotics, growth enhancers and color changing compounds. The antibiotics function synergistically to inhibit most non-*Listeria* microorganisms. Growth enhancers provide recovery nutrients to support the growth of sub-lethally injured *Listeria*. Indicator compounds will turn the broth from yellow to black by utilizing the β -glucosidase enzyme produced by *Listeria* species. A brown to black color 30-48 hours at 37°C indicates a presumptive positive test for *Listeria* spp. **Positive results can be read as early as 30 hours. Results cannot be considered negative until samples have been incubated for 48 hours.**

Additional Notes

Paradigm Diagnostics recommends the use of TECRA EnviroSwab (BioTrace International Bioproducts, Bothell, Washington, 425-398-7993) as sampling device for increased reliability of **PDX-LIB**.

Materials and Equipment Required

Tecra Enviroswabs for sampling and an incubator capable of maintaining $37^{\circ}\text{C} \pm 1^{\circ}\text{C}$ (e.g. heat block, water bath, air incubator).

Confirmation Step

Presumptive positive samples from food contact surfaces or the food processing environment can be confirmed streaking presumptive positive samples onto commonly used selective *Listeria* agar plates such as Modified Oxford Agar or Palcam agars. Typical *Listeria* colonies (dark gray colonies with black zones, generally with dimples) on MOX are used in confirmation protocols given in FDA/BAM (1) or USDA (2) methods.

Disposal

Decontaminate the **PDX-LIB** after use by autoclave, bleach or other disinfectants in accordance with local, state and federal regulations.

Product Shelf Life

PDX-LIB is stable **for 12 months** at refrigeration temperatures. The expiration date appears on the label along with the lot number. Keep **PDX-LIB** away from light during storage.

Precautions

1. *Listeria monocytogenes* is a dangerous human pathogen. When handling samples that possibly contain *L.monocytogenes*, extreme care should be taken to contain the samples and the enriched samples (presumptive positive tubes). Immuno-compromised individuals and pregnant women are particularly endangered by exposure to *L.monocytogenes* and should not be allowed in the vicinity of the testing.
2. **WARNING:** Some *Enterococci*, particularly *E.hirea* , *E. avium*, *E.feacalis*, and *E. gallinarum* could be resulting in presumptive false positive results. However, all media that noticeably darkens in color must be streaked onto MOX. Because, *Enterococci* do not grow on MOX plates, false positive result remains at a presumptive level.
3. Use of **PDX-LIB** with some yellow-pigmented sponges should be avoided because of the likely enzyme activity suppression and the resulting possibility of false negative test results.
4. Do not use **PDX-LIB** past the expiration date that appears on the label
5. Follow standard Good Microbiological Practices where appropriate.

(1) <http://www.cfsan.fda.gov/~ebam/bam-10.html>

(2) http://www.fsis.usda.gov/Ophs/Microlab/Mlg_8_04.pdf

Warranties and Liabilities

Paradigm Diagnostics Inc warrants the Products manufactured by it will be free from defects in materials and workmanship when used in accordance with the applicable instructions until the expiration date noted on the product packaging. Application protocols suggested by Paradigm are intended to be guidelines to the Buyers of the Products. Each Buyer is expected to validate the applicability of each application protocol to their individual applications. **PARADIGM DIAGNOSTICS MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED. THERE IS NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

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Instructions for Use: PDX-LIB Labor Saver for Environmental Samples

1. SAMPLING STEP: Take an environmental sample following USDA guidelines.

- Remove recommended sponge out of its sterile wrapping.
- Sponge the 4”x 4” area to be tested.
- Return the sponge into the original sampling container.
- Aseptically add one unit (20 mL) of PDX-LIB on top of sponge in sampling container, and snap close the sampling container.
- Incubate upright (sponge fully submerged in PDX-LIB) at 37°C for 30 to 48 hours.

2. INTERPRETATION STEP: If color of the media changes from yellow/amber to brown/black, after **30 to 48** hours of incubation at 37°C, the sample is considered presumptive positive for *Listeria spp.* **Positive results can be read as early as 30 hours. Results cannot be considered negative until samples have been incubated for 48 hours.** (Note: Although PDX-LIB has been designed to provide results within 30 hours, 48 hours of incubation at 37 °C has been shown to significantly improve the sensitivity of the test, and therefore highly recommended for maximum sensitivity). As with all experimental protocols, use of negative control (an unused sampling device containing one unit of **PDX-LIB**, incubated along side with the environmental samples) in each set of samples is recommended.

NOTE: For audio-visual instruction, please visit us at

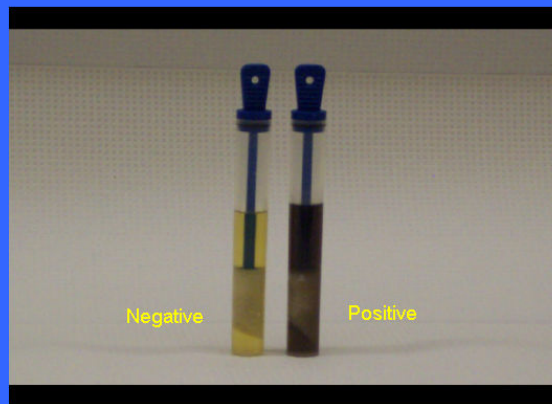
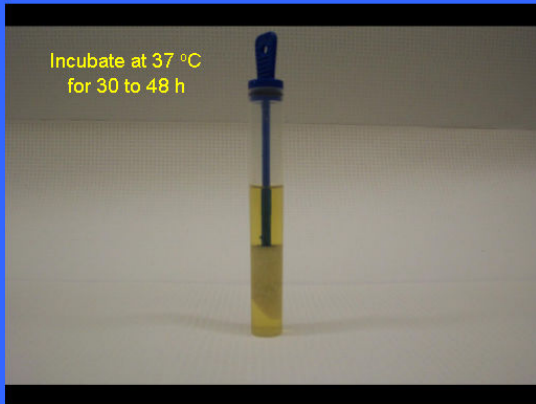
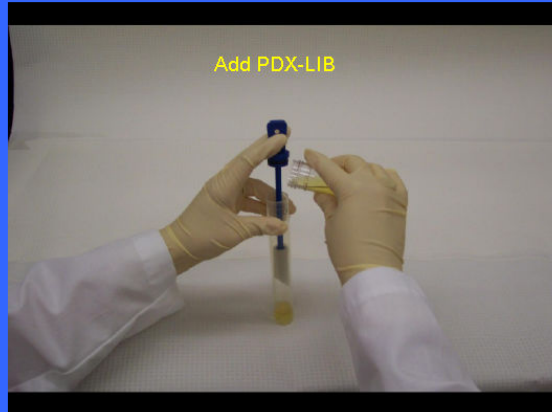
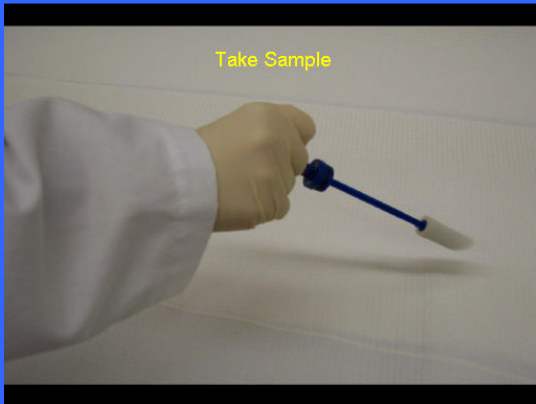
<http://www.pdx-inc.com/training/index.html>

and click on the link below

[Training Video - PDX-LIB-List 'Labor Saver' Method](#)



THE EASIEST SOLUTION TO ENVIRONMENTAL *LISTERIA* MONITORING
PDX-LIB LABOR SAVER



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