



MICROBACT™ LISTERIA 12L

A self-contained, manual identification system for the definitive identification of *Listeria* species.

FAST

Accurate identifications in as little as 4 hours.

SIMPLE

No prior subculturing on blood agar, no CAMP test and no developing reagents required.

EASY TO READ AND INTERPRET

Distinct colour changes and settling pattern are read visually and interpreted easily using the Microbact™ Identification Package.

COMPREHENSIVE

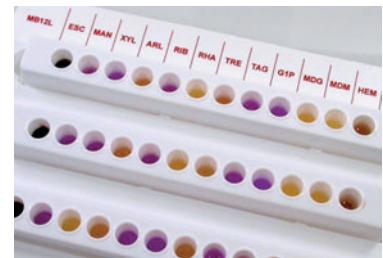
Allows the definitive identification of all *Listeria* species, including *Listeria monocytogenes* and *L. innocua*.

FLEXIBLE

Ideal for use with chromogenic or selective media, in clinical or food laboratory settings.

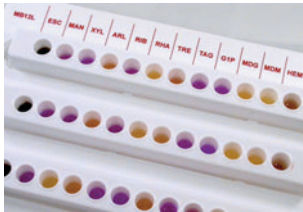
RELIABLE

Conforms to recognised international standards, including FDA and ISO.



MICROBACT

IDENTIFICATION KITS



MICROBACT™ LISTERIA 12L (MB1128A)

KIT CONTENTS:

Each kit contains sufficient materials to perform 20 identifications.

20 Microbact™ Listeria 12L Test Strips

20 Microbact™ Listeria 12L Suspending Medium Vials (3ml)

Haemolysin Test Diluent

Holding Tray

Technical Product Insert

Report Forms

ADDITIONAL ITEMS REQUIRED:

Microbact™ Identification Package (Windows®) MB1244A

TESTING FOR *LISTERIA*

Listeria spp are widespread in the environment and have been isolated from many different foods and animals. *Listeria monocytogenes* is the principal causative agent of human listeriosis. In severe cases, it can cause septicaemia, meningitis, encephalitis and, in pregnant women, intrauterine infections that may lead to spontaneous abortion or stillbirth. Contaminated foods are the primary sources of *L. monocytogenes* transmission in both sporadic and outbreak cases^{1,2,3}. Its ability to grow at low temperatures and its resistance to freezing, drying and heat, make this a resilient bacterium.

PRINCIPLE

Microbact™ Listeria 12L is a complete, self-contained biochemical based identification system for the definitive identification of *Listeria* species. Each strip incorporates 12 analytes – 11 carbohydrate utilisation tests and 1 rapid micro-haemolysis test. Organism identification is based on pH change and substrate utilisation as established by published reference methodologies^{4,5}.

Suspect colonies (catalase-positive, oxidase-negative, motile at 25°C, non-motile at 37°C, short Gram-positive bacilli) are suspended in the Suspending Medium provided and incubated according to the size of the inoculum. The Carbohydrate Utilisation Test results are read as distinct colour changes. To read the Haemolysin Test result: if the cells settle in the bottom of the well, the test is negative. If lysis occurs, the test is positive. Results are interpreted using the Microbact™ Identification Package.

PROCEDURE

1. Pick 4 to 5 suspect colonies and suspend in Listeria Suspending Medium.
2. Place Test Strip in Holding Tray and remove lid.
3. Place 4 drops bacterial suspension to each well.
4. Add 1 drop Haemolysin to well 12.
5. Replace lid and incubate at 35°C ± 2°C for 4 hours.
6. Record results on report forms and interpret using the Microbact™ Identification Package.

IMPORTANT

- Allow Haemolysin to reach room temperature before use.
- The test can be used with a single suspect colony and incubated for 18-24 hours.
- A purity check should be performed by inoculating a purity plate with 1 drop bacterial suspension. This should be incubated at 35°C ± 2°C for 24 hours.
- If reactions cannot be interpreted with confidence after 4 hours, replace strip in incubator and read after further incubation.

References: 1. WHO Working Group. Foodborne Listeriosis. BullWHO (1988) 66: 421-428. 2. Brackett, R.E. Presence and persistence of *Listeria monocytogenes* in food and water. *Food Technol* (1988) 42: 162. 3. Kerr, K.G., Dealler, S.F. and Lacey, R.W. *Listeria* in cook-chill food. *Lancet* (1988). 2: 37-38 4. USDA, FSIS Method for the isolation and identification of *Listeria monocytogenes* from processed meat and poultry products. 5. AS 1766.1.15(INT)-1991, TC 34/SC5 N307, FDA Bacteriological Analytical Manual, 7th edition (1992), 141-162.



DEDICATED TO MICROBIOLOGY

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