# CompactDry™

# Compact Dry™ LS

Ready-to-Use Medium for *Listeria* spp.



**Compact Dry™** offers a simple and safe procedure to detect and quantify microorganisms in foods, beverages, raw materials, cosmetics, pharmaceuticals, and environmental samples.

*Listeria* spp. are Gram-positive, motile (under mesophilic conditions) bacteria of clinical importance due to their virulence activity. *Listeria* spp. are found in many environments, such as soil, water, decaying vegetation, and animals.

Certain species, such as *Listeria monocytogenes*, can survive refrigeration and other food preservation methods. *Listeria* spp. can be transferred into the food chain when food is harvested or stored, and can remain as a contaminant throughout the food production process. This requires continuous monitoring of raw materials, processed product, and the food production environment.

## About the Test

Resuscitation step (ENV): 20°C, 1 hour Incubation time:  $24 \pm 2$  to  $48 \pm 3$  hours Incubation temperature:  $35-37 \pm 1^{\circ}$ C

Testing Protocol and Interpretation

**pH Adjustment:** The pH of the product or 1:10 dilution of product should be between 6 and 7 for optimal growth of target microorganisms. If the pH is not between 6 and 7, adjust the pH or the product or 1:10 dilution with 1 N or 0.1 N NaOH for acidic products or 1 N or 0.1 N HCl for alkaline products.

**Interpretation:** *Listeria* forms light blue/ blue colonies 1–2 mm in diameter. This interpretation is presumptive, therefore, confirmations must be made according to ISO 11290-2.

**Storage and shelf life:** Room temperature, +1°C to +30°C, 18 months.

### Manufactured by

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### Customer support and sales

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The sample diffuses passively and evenly across the dehydrated media sheet, rehydrating the dry medium into a gel within seconds.

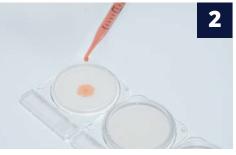


Following incubation, count the number of colored microbial colonies.

# **General Testing Protocol**



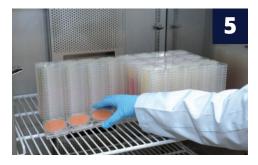
Remove the lid.



Dispense 1 ml of sample in the middle of the Compact Dry plate.



Replace the lid and label the plate.



Turn over the plate (lid down) and incubate for the appropriate time and temperature.



## Interpretation

- Consider presumptive colonies of *Listeria* spp. those presenting blue/light blue coloration.
- Compact Dry LS plate identifies *Listeria* spp., it does not differentiate *L. monocytogenes*.
- *Listeria* colonies have a convex morphology, with regular edges and a size of 1–2 mm.
- Count range 1–300 cfu/plate.

## Enumeration

Enumeration of colonies can be performed from the front or the back of the Compact Dry plate. Read against a white background with an adequate light source. The grid lines on the back of the plate are useful when high plate counts are present. Colony morphology is best observed on the front of the plate. Colonies can be sampled for further identification by removing the lid and selecting an isolated colony. Use an inoculating loop to transfer to an agar plate or a pipette tip to place into a growth medium. Gently remove a colony taking care not to disturb the surrounding growth medium.

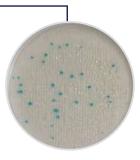


*Listeria* spp. count = 0 *Listeria* ssp. is not present on the plate.



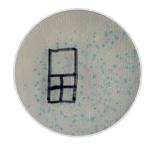
# Presumptive *Listeria* spp. count = 23

*Listeria* ssp. is present on the plate with a light blue color and defined borders. The incubation time was 24 hours; an additional 24 hours of incubation can be utilized for better colony definition and action can be taken based on initial counts.



# Presumptive *Listeria* spp. count = 34

*Listeria* ssp. is present on the plate with a light blue color and defined borders. An additional incubation period of 24 hours was added after an initial read at 24 hours for better colony definition.



#### Presumptive Listeria spp. count = TNTC

This plate is too numerous to count. The total number of colonies are outside of the countable limit of the plate (1–300 cfu/plate). The count can be estimated using etched gridlines on the back of the plate. Use the average colony count in a few of the large squares (1 cm<sup>2</sup>) and multiply by 20 to obtain the approximate plate count. Keep in mind the colonies are not evenly distributed across the plate. To obtain an accurate plate count further dilution of the sample is recommended.



#### Presumptive Listeria spp. count = TNTC

The plate is too numerous to count. *Listeria* ssp. is present, however a light blue color covers the plate with no defined borders and the plate is unable to be interpreted.