

Instruction Manual

MC-Media Pad® *Enterobacteriaceae*

Convenient culture media for enumeration of *Enterobacteriaceae*

Application

For hygiene control, it is important to determine the microbial count in food and beverage products. MC-Media Pad® *Enterobacteriaceae* is intended for the detection and enumeration of *Enterobacteriaceae*.

The MC-Media Pad® is a pre-sterilized, ready-to-use dry culture device, simplifying testing and minimizing the quantity of waste. MC-Media Pad® is composed of a unique adhesive sheet, a test pad coated with medium and water absorption polymer, and a transparent cover film.

Test Principles

MC-Media Pad® *Enterobacteriaceae* is coated with selective medium, pH indicator and redox indicator for specific detection. Once the liquid sample is inoculated onto the test pad, the sample diffuses to the whole pad through capillary action. The medium re-constitutes automatically. And test pad is colored purple by pH indicator.

Enterobacteriaceae produces acid from glucose contained in the medium, pH indicator turns yellow from purple. For this reason, *Enterobacteriaceae* is detected as red colored colonies associated with yellow zone. Red colored colonies without yellow zone are not *Enterobacteriaceae*.

Contents and Storage

100 pads (4 x 25 pads); Cat. No. 1323720001

This kit should be stored between 2–15 °C. (Refrigerated)

Materials Required but not Provided

- Incubator (35 ±1 °C)
- Homogenizer or Blender (e.g. Cat. No. 5.42765.0001)
- Sampling bag (Recommended for homogenizer; bag with filter to eliminate food debris)
- Pipette or Pipettor and pipette tips
- Peptone salt solution, Quarter-strength Ringer's solution, Butterfield's phosphate buffer, phosphate buffered saline, saline or appropriate diluent

Sample Preparation

For solid food samples

Homogenize 10 g of the test sample with 90 mL of appropriate diluent with a homogenizer.

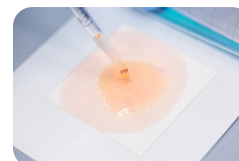
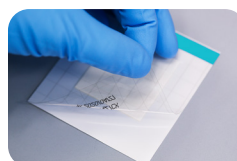
For liquid samples

Sample can be applied directly. For viscous liquid samples, homogenize same as solid sample.

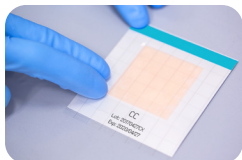
Adjust the pH of the sample solution to neutral (pH 7.0 ± 1.0) with 1 mol/L HCl or NaOH. By the test sample, 10-fold serial dilution is necessary.

Test Procedure

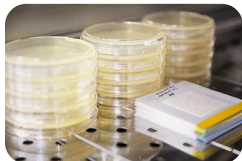
1. Open the aluminum bag, and take out the MC-Media Pad®. If necessary, write information on the cover film.
2. Lift the transparent cover film and add the 1.0 mL of sample solution onto test pad.



3. Close the cover film and lightly press the edges of film to seal.



4. Incubate test plate at 37 ± 1 °C for 24 ± 2 hours.



5. Re-seal the opened bags and store at 2–15 °C for up to 4 weeks.



Interpretation



Count red colored colonies associated with yellow zone. Do not count red colored colonies without yellow zone. If it is difficult to see yellow zone, use a desk lamp and count in a bright environment.

The measurement range is 100 colonies or less. If more than 100 colonies are present, entirety of the test pad turns yellow, and interpretation will be difficult. Dilute the sample solution to fit within the measurement range.

If necessary, the target colony can be picked up with a sterile needle from test pad for further analysis.

Precautions

- The test is designed for use by quality control personnel and others familiar with testing samples potentially contaminated with *Enterobacteriaceae*.
- Read this instruction manual carefully before use.
- Do not expose unused pads to sunlight or ultraviolet light.
- Do not use a damaged pad.
- Pale pink coloration, black dots, small fragments of fabric, wrinkles or dents on the unused test pads do not affect detection.
- Small fragments of fabric on or around the test pad should not affect detection.
- Do not use the pads after the expiry date. The quality of an expired pad is not guaranteed.
- MC-Media Pad® *Enterobacteriaceae* detects gram-negative bacteria that produce acid from glucose. Therefore, certain gram-negative bacteria (genus *Aeromonas* etc.) may be counted as *Enterobacteriaceae*.
- Dispose according to local regulations after sterilization by autoclaving or boiling.

To place an order or receive technical assistance

For more information, please visit www.sigmaaldrich.com, go to the support tab for up-to-date worldwide contact information

