MC-Media Pad[™] "EB" instruction manual Easy and accurate dry culture system for Microbial Counts

Read this instruction manual carefully and use under the control of a technician in microorganisms.

For hygiene control, microbiological examination of food and the process environment is important. MC-Media Pad EB is culture medium for counting *Enterobacteriaceae*. MC-Media Pad is pre-sterilized, ready-to-use and sheet form, it enables simplification of the microbiological examination and reduction of the waste. And MC-Media Pad is manufactured in ISO 9001 certified factory.

STRUCTURE and TEST PRINCIPLES

MC-Media Pad is composed of an adhesive sheet, a test pad coated with water absorption polymer and non-woven fabric, and a transparent cover film. Test Pad of MC-Media Pad EB is coated with selective medium, pH indicator and redox indicator for detecting colonies. After addition of sample solution, 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 on the purple test pad. Red colored colonies without yellow zone are not *Enterobacteriaceae*.

- •1000 plates code **SK07A25** (25 plates x 40)
- •100 plates code **SK07B25** (25 plates x 4)

REQUIRED EQUIPMENTS

Incubator (37 ± 1°C)

- Homogenizer or Blender
- •Sampling bag (Filtered bag is recommended to remove food residues.)
- Pipette and pipette tips
- Peptone salt solution, quarter-strength Ringer's solution, phosphate-buffered saline, Butterfield's phosphate buffer or saline solution (Diluents with high pH buffering capacity, such as Buffered Peptone Water (BPW), are not recommended. These diluents inhibit function of pH indicator.)

SAMPLE PREPARATION

- 1. For solid samples, put 10 g of the test sample into a sampling bag with 90 mL of appropriate diluent, and homogenize by stomacher. Liquid samples do not need to be homogenized. For viscos liquid samples, homogenize same as solid sample.
- 2. Adjust the pH of the sample solution to neutral (pH 7.0 \pm 1.0) with 1 mol/L HCl or NaOH. If the pH of sample solution exceeds neutral, pH indicator in the medium will not work properly, accurate interpretation will be difficult.
- 3. The sample components and number of microorganisms will make interpretation difficult. In this case, further dilution is recommended.

TEST PROCEDURE

- Open aluminum bag and take out the MC-Media Pad. If necessary, write information on the cover film.
- 2. Lift the cover film so that the entire test pad is exposed, add 1.0 mL of sample solution onto the center of test pad. Addition of less than 0.9 mL causes unusual coloring of the test pad. Be sure to add 1.0 \pm 0.1 mL of sample solution.
- 3. Close the cover film and lightly press the around of test pad to seal the adhesive sheet.
- 4. Incubate 24 ± 2 hours at $37 \pm 1^{\circ}$ C.
- 5. Count the number of colonies according to interpretation.
- 6. Dispose according to local regulations after sterilization by autoclaving or boiling.

•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.
- •For liquid samples and water-soluble solid samples, the sample components will make interpretation difficult. In this case, dilute sample solution.
- If necessary, the target colony can be picked up with a sterile needle from the test pad for further analysis.
- •MC-Media Pad EB detects *Enterobacteriaceae* as a gram-negative bacteria that produce acid from glucose. Therefore, certain gram-negative bacteria (genus *Aeromonas* etc.) may be counted as *Enterobacteriaceae*.

PRECAUTIONS

- •Do not expose unused pads to sunlight or ultraviolet light.
- •Do not use a damaged pad.
- •Do not open the cover film until just use.
- •Pale pink coloration, black dots, small fragments of fabric, wrinkles or dents on the unused test pads do not affect detection.
- •Wrinkles on the test pad with addition of sample solution do not affect detection.

STORAGE and EXPIRATION

- •Store at 2 15°C away from light.
- •Do not store in freezer.
- Do not use expired pads.
- •Expiry date is printed on cover film, aluminum bag and packaging box. This date is valid only if the aluminum bag is unopened and properly stored.
- •After opening the aluminum bag, re-seal the opened bag, and store at 2 15° C for up to 1 month.

LIMITATION of WARRANTY

The products are covered by the applicable JNC Corporation standard warranty. NO OTHER EXPRESS OR IMPLIED WARRANTY IS MADE WITH RESPECT TO THE PRODUCTS. JNC EXPRESSLY EXCLUDES THE IMPLIDE WARRANRTIES OF MERCHANTABILITY AND OF FITNESS FOR A PARCULAR PORPOSE. If product is defective, JNC and JNC's authorized distributor will provide a replacement or refund at the purchase price.

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