

MC-Media Pad E.coli & Coliform

Convenient culture media for simultaneous enumeration of Escherichia coli and coliform bacteria

For hygiene control, it is important to determine the microbial count in food and beverage products. MC-Media Pad E.coli & Coliform is intended to simultaneously determine coliform and E.coli number through special medium composition and specific chromogenic substrates for both β -galactosidase and β -glucuronidase.

MC-Media Pad pre-sterilized, ready-to-use dry culture devices simplify testing and minimize 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 Pads are coated with selective medium and chromogenic substrate 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. If target organisms are present, coliform and E.coli grow as blue-green/blue and purple/navy colored.

The detection of E.coli is based on the ability of these strains to produce β -glucuronidase. 97% of the E.coli strains are glucuronidase positive and will provide reliable results. 3% of the E.coli strains (e.g. ATCC 8739) are weaker in their glucuronidase production and cannot be properly detected with MC-Media Pad E.coli / Coliform.

Contents and Storage

100 pads (4 x 25 pads); catalogue number 1323000001

This kit should be stored between 2-15 °C (Refridgerated)

Materials Required but not Provided

- Incubator (35±1°C)
- Stomacher or Blender
- Sampling bag (Recommended for Stomacher; bag with filter to eliminate food debris)
- Pipette or Pipettor and pipette tips
- Butterfield's phosphate buffer, phosphate buffered saline, saline or appropriate buffer

Sample Preparation

For Solid Food Samples

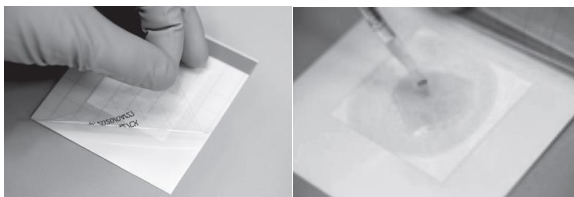
Homogenize 50g of the test sample with 450 mL of appropriate diluent (e.g. Phosphate Buffered Saline, Butterfield's Phosphate Buffer, saline or water) with a stomacher. If necessary, make 10-fold serial dilution.

For Liquid Samples

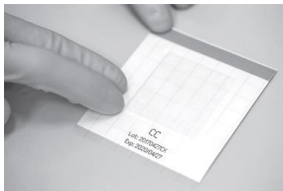
Sample can be applied directly. If necessary, pH of sample should be adjusted to neutral (pH 7.0 ±0.2).

Test Procedure**Contents General Operation**

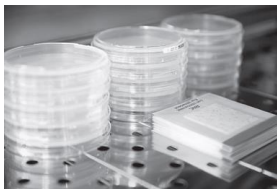
1. Open the aluminum bag, and remove MC-Media Pad. If necessary, write information on the cover film.
2. Lift the transparent cover film and pipette 1.0 mL of sample solution onto test pad. (It is recommended to lift the cover film diagonally for easy and secure.)



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



4. Incubate test plate at 35±1 °C for 24±2 hours.



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



Interpretation

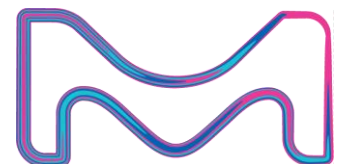


Count all colored colonies (blue-green/blue and purple/navy) as coliform regardless of strength of color. For E. coli count, only purple/navy colored colonies should be counted. If the large number of colonies is difficult to count, colony counts can be estimated by counting colonies in one grid square and multiplying by 20.

If more than 10 to 4 of microbes are grown, the entirety of test pad may appear as stained, and it may appear that no individual colonies were formed. If this is the case, dilute the sample further and re-test. 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 coliform and E. coli
- Read this instruction manual carefully before use
- After opening the aluminum bag, unused pads should be stored in the aluminum bag sealed with tape, and kept in a cool (2-15 °C) environment. After opening, use all pads within 1 month



Millipore®

Preparation, Separation,
Filtration & Testing Products

Technical Data Sheet

- Do not expose unused pads to sunlight or ultraviolet light
- Do not use a discolored or damaged pad
- A wrinkle on the test pad should not affect detection
- Small fragments of fabric on or around the test pad should not affect detection
- Do not use the pads after the expiration date. The quality of an expired pad is not warranted
- The measurement range is less than 300 cfu/pad. If more than 300 cfu/pad are counted, further dilution is recommended
- MC-Media Pad E.coli and Coliform detects coliform bacteria by existence of β -galactosidase. Therefore certain bacteria (genus Aeromonas etc.) which possess this enzyme may grow as coliform
- E.coli serotype O157 is detected as coliform (blue-green/blue) because it lacks β -glucuronidase
- In cases where β -galactosidase containing foods are applied (e.g. cheese, lactic drink or liver), the entirety of test pad may appear as stained
- The used kit must be decontaminated by autoclaving or boiling, and disposed according to local regulations for waste

Impex Produkter AS
Gamle Drammensvei 107
1363 Høvik
www.impex.no
info@impex.no
Tel.: 22 32 77 20

Merck KGaA
Frankfurter Strasse 250
64293 Darmstadt
Germany

