

Instruction Manual

MC-Media Pad Staphylococcus aureus

Convenient culture media for enumeration of Staphylococcus aureus

Application

For hygiene control, it is important to determine the microbial count in food and beverage products. MC-Media Pad Staphylococcus aureus is intended to determine the *S. aureus* count using a special medium composition and specific chromogenic substrate for this pathogen.

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 a selective medium and a chromogenic substrate for specific determination. Once the liquid sample is inoculated onto the test pad, the sample diffuses through the whole pad by capillary action.

The medium re-constitutes automatically. If *S. aureus* is present, it grows as light-blue/blue colored colonies on the test pad.

AOAC Certification

MC-Media Pad Staphylococcus Aureus was compared to EN ISO 6888-1:1999 and certified by the AOAC Research Institute Performance Tested MethodsSM Program (PTM 051704) for enumeration of *S. Aureus* in pastrami, cooked chilled sliced chicken roll, cooked peeled chilled prawns, smoked salmon, pasta salad in tomato dressing with vegetables and cheese, cheese and mayonnaise-based sandwich spread, fresh uncooked penne pasta, infant probiotic cereal, chilled custard, and raw cow's milk Brie cheese.

Contents and Storage

100 pads (4 x 25 pads); catalogue number 1323010001
This kit should be stored between 2-15 °C. (Refrigerated)

When unopened and stored properly, the kit has a shelf-life of 1 year from date of manufacture. Refer to product label for expiration date.

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
- Maximum Recovery Diluent (MRD) or appropriate diluent according to EN ISO 6887-1.

Sample Preparation

For solid food samples

Homogenize a 10-g test portion in 90 mL of MRD with a stomacher. If necessary, make a 10-fold serial dilution of the homogenate by diluting 10 mL homogenate with 90 mL MRD.

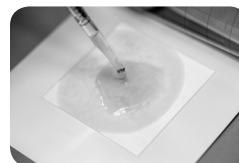
For liquid samples

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

Test Procedure

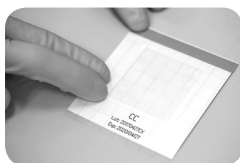
Contents General Operation

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 re-sealing.)

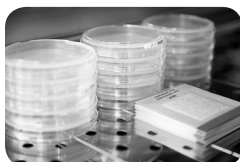




3. Close the cover film and lightly press the edges of film to seal.



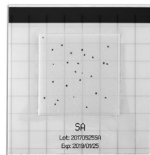
4. Incubate pad at 35 ± 1 °C for 24 ± 2 hours.



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



Interpretation



Count all light-blue/blue colored colonies as *S. aureus* regardless of strength of color. For large number of colonies, colony counts can be estimated by counting colonies in one grid square and multiplying by 20.

If more than 10^4 of microbes are grown, the entire 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, a target colony can be picked up with a sterile needle from the test pad for further analysis.

CONTACT and FURTHER INFORMATION

Merck KGaA, Darmstadt, Germany.

www.millipore.com

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Precautions

- The test is designed for use by quality control personnel and others familiar with testing samples potentially contaminated with *S. aureus*.
- *S. aureus* strains may produce enterotoxins, toxic shock syndrome toxin, or exfoliative toxins. Use personal protective equipment such as gloves, laboratory coat and eye protection.
- Treat samples and inoculated devices as potentially biohazardous. Use biosafety level 2 practices
- 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
- 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 counted, further dilution is recommended
- The presumptive *S. aureus* detected on MC-Media Pad should be confirmed to be *S. aureus* by coagulase test or other tests.
- In case of applying enzyme-containing foods (e.g. raw foods or liver), the entire test pad may appear as stained.
- The nature of food (high viscosity food or food dye) may affect test usage or results. In that case, the causes need to be eliminated by dilution or other means
- The use of BPW as diluent may cause colonies to appear black.
- The used kit must be decontaminated by autoclaving or boiling, and disposed according to local regulations for waste

