Prepared media plate for rapid aerobic count

Easy Plate AC-R Instruction Manual

code: 61979

CAUTION!
1. Do not attempt to eat this product, touch the growth area with bare hands or allow the medium to get into eyes.
2. Please make sure to read the precautions and instructions in this Instruction Manual before attempting to use the kit and exercise extreme caution when using it.

Product Description and Intended Use

Easy Plate AC-R is a prepared microbiological culture device made up of a waterproof sheet, a dry medium on the sheet and a transparent cover over the medium. The Easy Plate AC-R method is intended to indicate the level of aerobic bacteria in food and beverage products. It is compact and easy to use and reduces the total amount of waste produced during testing. Easy Plate AC-R is manufactured at an ISO (International Organization for Standardization) 9001 certified site.

Contents of Product

One box of this product contains 100 sheets.

- 25 sheets per bag
- 4 bags in a box

Materials Required but Not Provided*

- Incubator (35 ± 1℃)
- Paddle blender or Blender—Seward or equivalent
- Sampling bag
- Pipette or Pipettor and pipette tips
- Butterfield's phosphate-buffered diluent or appropriate diluents according to ISO 6887

Instructions for Use

1. Sample preparation

User should choose an appropriate method for the sample preparation. Refer to ISO 6887, FDA Bacteriological Analytical Manual (BAM) or other regulatory guidelines. The following method is an example.

1) Weigh 50 g test portions into a sampling bag.
2) Add 450 mL diluent and blend for up to 2 minutes.
3) Prepare all decimal dilutions with 9 ml diluent plus 1 mL previous dilution.
4) Shake 25 times.

2. Inoculation

1) Allow the bag of Easy Plate AC-R to reach room temperature (15-25℃). Then, remove the required number of sheets from the bag under aseptic conditions.
2) Place the sheet on a flat surface.
3) Lift the cover and place 1 mL sample suspension onto the center of the plate.
4) Lower the cover onto the sheet and allow the sample to spread evenly. (If the cover sheet on the plate becomes bent, discard and replace the entire plate. A bent cover sheet will prevent uniform spreading of the sample, Sample suspension may ooze outside the growth area.).
5) Allow the plate to settle for 3 minutes or more on a horizontal surface. Do not tilt the sheet until solidification of the suspension is complete. Once solidification is complete, the plate can be handled normally.
6) Hold both ends of the sheet and place it into an incubator.

3. Incubation

Incubate the plate(s) at 35 ± 1℃ for 24 ± 1 hours*. Up to 25 plates can be stacked for space saving and convenience.

*Twenty-four hours of incubation may be insufficient depending on the sample. In such cases, extend the incubation period by an additional 24 hours for better interpretation.

4. Interpretation

Count all red colonies regardless of size or intensity. The suitable colony counting range is 1-250

Troubleshooting for counting colonies:

a) When the entire growth area becomes red or pink, record the count as too numerous to count (TNTC).
b) When the number of colonies per plate exceeds 250, for all dilutions, record the count as too numerous to count (TNTC). If an estimated count is required, count colonies within 1-3 squares (1 cm x 1 cm) printed on the cover and calculate an average. Multiplying the average number by 20 provides the estimated count since the circular growth area is approximately 20 cm^{2*}.

*Retesting with a higher dilution is recommended for improved accuracy.

c) When a bubble disrupts a colony so that the colony outlines the bubble, count it as one colony.
d) When a colony is spreading, count it as one colony.
e) When two or more spreading colonies appear to originate from separate sources, count each source as one colony.
f) When the sample is not clear (i.e. cloudy or dark), prepare a higher dilution.

5. Colony isolation

Lift the cover and pick a single colony from the gel.

Precautions

1) This product is not to be used for clinical testing.
2) This product has not been tested with all possible food products, food processes, test protocols or strains.
3) The Easy Plate AC-R sheets are decontaminated in the manufacturing process though not sterilized.
4) Do not open the cover until just before inoculation.
5) Do not use the product after its expiry date.
6) Occasionally, there may be a stretched spot in the ring outside the medium area, but it does not affect the microbial growth.
7) Occasionally, brown-to-black particles and small hollow spots may be present in the medium area, but it does not affect the microbial growth.
8) Do not use any plates that show damage or are deformed,

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discolored, or show presence of foreign materials.

9) Do not expose the product to direct sunlight.

10) Use caution when lowering the cover onto the media and spreading the sample suspension. Avoid direct pressure on the plate cover and avoid causing the suspension to spill out from the growth area. If the sample suspension does spill out from the growth area, discard the plate and repeat the inoculation with a new plate.

11) Always wear safety eyewear when performing inoculations and analysis. If medium or reagents get into the eyes or mouth, flush thoroughly with water and seek medical attention.

12) Analysis needs to be performed under the control of a skilled microbiologist. Refer to Good Laboratory Practices* or ISO 7218.

*Ex) U.S. Food and Drug Administration. Code of Federal Regulations, Title 21, Part 58. Good Laboratory Practice for Nonclinical Laboratory Studies.

Storage

Store in the refrigerator (2-8°C).

The product can be stored in packaging up to 25°C for up to 14 days or up to 30°C for up to 5 days before opening the packaging.

Storage after Opening the Packaging

Put any unused sheets back into the packaging, fold the end of the packaging over twice, and seal with tape. The shelf life under refrigerated condition is 3 months after opening.

Shelf Life

Expiry date is specified on the side of the box and the back side of the bag after the word “EXP”. The shelf life of the product is 12 months after manufacturing if it is stored properly in unopened packaging.

Disposal

Any and all media, supplements, and reagents must be sterilized by autoclaving after use, and then disposed as industrial waste according to local laws and regulations.

Warranty

Kikkoman Biochemifa Company warrants the products to have a certain level of quality. This warranty guarantees that Kikkoman Biochemifa Company shall replace defective products should any be found. This warranty does not provide any other guarantees. Kikkoman Biochemifa Company shall not be liable for any damages, including special or consequential damages, or expenses arising directly or indirectly from the use of this product.

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