

Compact Dry SA

Simple and Easy Dry Media for Microbial Count

For *Staphylococcus aureus*:

Compact Dry "HyServe" SA Plate

Compact Dry "HyServe" SA Egg Yolk Suspension

Background

It is important to detect and determine the bacterial number in foodstuffs and environment to monitor the degree of cleanness as well as their sanitary safety. Mixing and dilution culture method has been widely used to determine the microbial count. The method requires much of time and complicated operations such as preparation of hot agar, mixing and dilution uniformly and/or smearing. To save the time of operator and make it possible for anyone to perform the bacteria culture test without difficulty, HyServe has successfully developed new device based on new concept and technology, which requires a simple easy manipulation to add a drop of specimen and egg yolk suspension on the device.

Compact Dry "HyServe" SA consists of Compact Dry "HyServe" SA Plate, which is based on the improved Mannitol Salt Agar, and Compact Dry "HyServe" SA Egg Yolk Suspension. The product is a simplified medium to determine *S. aureus* by means of selective growth of *Staphylococcus* and differentiation by Egg Yolk reaction.

Features and Benefits

- 1) Small and compact plate: Need only small physical spaces for storing, testing and incubating.
- 2) Ready to use and portable plate: No need to prepare medium and egg yolk suspension, which eliminates waste of medium as well as apparatus to prepare the medium. Good for an emergency and a field test.
- 3) Sample diffuses automatically and evenly into plate
- 4) Easy to differentiate *S. aureus* colonies due to egg yolk reaction.
- 5) Easy fishing of colonies.

**Kit composition

Compact Dry "HyServe" SA Plate 40 plates / 240 plates

Compact Dry "HyServe" SA Egg Yolk Suspension

Sterilized egg yolk suspension 2 tubes for 20 specimens each

Sterilized dropper (10 droppers x 2 packs) x 2 packs

Operating Procedure

Preparation of specimen

- 1) Bacterial number in solid foodstuffs:
Add buffering solution to the sample, and homogenize by Homogenizer. Drop 1ml of specimen (to be further diluted if necessary) in the middle of dry sheet of Compact Dry.
- 2) Bacterial number in water or liquid foodstuffs:
Drop 1ml of specimen (to be diluted if necessary) in the middle of dry sheet.
- 3) Bacterial number in swab test specimen:
Drop 1 ml of wiping solution (to be diluted if necessary), which is obtained from cotton swab, in the middle of dry sheet. It is recommended to use Easy Wiping Kit "HyServe" available as an optional kit.

Direction

- 1) Open aluminum pouch, and take out a set of 4 plates.
- 2) Detach necessary number of plate(S) from a set of four by bending up and down while pressing the lid. Use a set of four plates being connected when serial dilution measuring is intended.
- 3) Take off the lid of the plate, and drop 1 ml of specimen in the middle of dry sheet. Specimen diffuses automatically and evenly into all over the sheet (medium size of 20 cm²) to transform it into gel.
- 4) Unscrew the cap of Compact Dry "HyServe" SA Egg Yolk Suspension and updraw the suspension aseptically, using the sterilized dropper attached, till the gauge mark (0.3mL).
- 5) Drop all egg yolk suspension up drawn evenly on about 7 – 8 spots of the plate that is turned to gel.
- 6) Put the lid again, and write the information needed on the memorandum section. Turn over the plate capped, put in an incubator. Incubate 48 hours at 35°C.
- 7) Yellow colonies with white turbidity medium around (positive egg yolk reaction) account for *S. aureus*.

Precaution for use

- 1) During inoculation and dropping egg yolk suspension, do not touch the surface of medium and/or tip of dropper, and be careful to avoid any contamination by falling microorganism.
- 2) During incubation, keep lid tight of Compact Dry to avoid any possible dehydration.
- 3) Though one tube of Egg Yolk suspension is for 20 plates use, certain excess suspension is aseptically contained. Do not return any extra suspension remained in the dropper into the tube to avoid contamination. Screw the cap of the tube tightly again and keep it in refrigerator under 10°C.
- 4) Precipitation may be generated on bottom of Egg Yolk Suspension, but it does not affect the result.
- 5) It is recommended to use a stomacher bag with filter to eliminate risks of carry over of tiny pieces of foodstuffs into the surface of the medium.
- 6) Specimen should be diluted by buffer solution to the level of concentration of less than 300 cfu/plate.
- 7) If bacteria more than 10⁴ cfu were inoculated on a plate, no independent colonies are formed
- 8) If the nature of specimen does affect the result, inoculate the specimen only after the cause is eliminated by means of such as dilution and others. For instance; specimens such as high viscosity, deep colored, too high or too low pH.

Interpretation

Staphylococcus aureus generates yellow pigment to develop light yellow colonies, and also decomposes the lipid-protein complex (lecithin) of egg yolk by its enzyme, which changes the peripheral medium around the colonies to white turbid.

Precaution for interpretation

- 1) Full medium size in the plate is 20 cm², and the back of container has a grid carved of 1cm x 1cm to make colony counting easier. In case of any difficulty to count the colonies due to great large number of colonies grown on the medium, total bacterial number can be obtained by multiplying 20 by an average number of colonies per a grid (1cm x 1cm) counted from several grids.
- 2) Though some bacteria other than *S. aureus* may also develop colonies on this plate, only colonies of positive egg yolk reaction should be counted.
- 3) It is known that positive egg yolk reaction is also observed for certain bacteria other than *S. aureus*, and some of them (genus *Bacillus* in particular) may develop colonies with positive egg yolk reaction. It is easy, however, to differentiate them from *S. aureus*, because almost all of them develop flat and matt colonies only.
- 4) When colonies are buried in medium, positive egg yolk reaction may not easily be observed.

* Warning and Direction for Use

1. General precautions

- 1) Read and follow precisely the warning and direction for use described on the package insert and/or label.
- 2) Do not use the product after its expiry date. Quality of the product is not warranted after its shelf life.
- 3) Do not use the product that contains any foreign materials, discolored or dehydrated, or its container is damaged.
- 4) After opening the aluminum pouch, any plates unused should be put back into the aluminum pouch to be sealed with tape to avoid light and moisture, and use up as soon as possible.
- 5) Unused sterilized dropper should be kept sterile by taping pack after once opening.

2. Precautions for danger

- 1) When if medium or reagent touched eyes or mouth, immediately wash with plenty of water, and consult a physician
- 2) Manipulations with microorganisms involve always certain risks of laboratory-acquired infections. Manipulations should be practiced under the supervision of skillful specialist with biohazard protection measures.
- 3) Any laboratory equipment and medium that touched with specimen should be regarded as infectious in the laboratory.

3. Precautions for disposal of waste

Any medium, reagent and materials must be sterilized by autoclaving or boiling water after use, and then disposed as industrial waste according to the Law on Waste Disposal and Cleaning. Also follow to local laws and regulations relate to dispose.

4. Limitation of Warranties

If Compact Dry plate has proven to defective due to HyServe's negligence will replace or refund at the purchase price of the plate.

Storage and Shelf life

	Storage	Shelf life
Compact Dry "HyServe" SA Plate	Keep at room temperature (1 – 30°C)	One year after Manufacturing
Compact Dry "HyServe" SA Egg Yolk Suspension	Cool place (4 – 10°C) Do not freeze	10 months after manufacturing

Shelf life is printed on the labels of outer box, aluminum bag and a vial of Egg Yolk Suspension.

Package

Compact Dry "HyServe" SA 40 plates
Compact Dry "HyServe" SA 240 plates
Compact Dry "HyServe" SA Egg Yolk Suspension 40 specimens

Related Products

Compact Dry "HyServe" TC 40 plates
Compact Dry "HyServe" TC 240 plates
Compact Dry "HyServe" EC 40 plates
Compact Dry "HyServe" EC 240 plates
Compact Dry "HyServe" CF 40 plates
Compact Dry "HyServe" CF 240 plates
Compact Dry "HyServe" YM 40 plates
Compact Dry "HyServe" YM 240 plates
Compact Dry "HyServe" VP 40 plates
Compact Dry "HyServe" VP 240 plates
Compact Dry "HyServe" SL 40 plates
Compact Dry "HyServe" SL 240 plates
Compact Dry Swab" 240 or 40 swabs

Further information

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