Compact Dry™ VP

Ready-to-Use Medium for
Vibrio parahaemolyticus

Background

It is important to detect and determine the bacterial number in food products and the food environment to monitor the degree of cleanliness and sanitary safety. A mixing and dilution culture method has been widely used to determine microbial count. The method is time-consuming and requires complicated operations such as preparation of hot agar, mixing a dilution uniformly and/or spreading. To save operator time and make it possible for anyone to perform a bacterial count test without difficulty, Compact Dry was developed based on a new concept and technology applicable to the food industry.

Detection

Compact Dry VP detects *Vibrio parahaemolyticus* in both food and environmental samples. The plate contains specific chromogenic enzyme substrate.

V. parahaemolyticus grow to develop blue/blue-green colonies. *V. vulnificus, V. cholerae,* and *V. mimicus* grow to develop pink/magenta colonies.

Warnings and Precautions

1. General precautions

- Read and follow precisely the warnings and directions for use described in the package insert and/or label.
- Do not use the product after its expiration date. Quality of the product is not warranted after its shelf life expires.
- Do not use product that contains any foreign materials, is discolored or dehydrated, or has a damaged container.
- Use plates as soon as possible after opening. Return any unused plates to the aluminum bag and seal with tape to avoid light and moisture.
- Cap tightly after inoculation to avoid dehydration of gelled medium.

2. Safety precautions

- If medium or reagent comes into contact with eyes or mouth, immediately wash with water and consult a physician.
- Procedures with microorganisms involve certain risks of laboratory-acquired infections. Procedures should be carried out under the supervision of trained laboratory personnel with biohazard protection measures.
- Treat any laboratory equipment or medium that comes into contact with the specimen as infectious and sterilize appropriately.

3. Precautions for disposal of waste

- Sterilize any medium, reagent or materials by autoclaving or boiling after use, and then dispose of it as industrial waste according to local laws and regulations for disposal of such material.

4. User responsibilities

- It is the user's responsibility in selecting any test method to evaluate a sufficient number of samples with particular foods and microbial challenges to satisfy the user that the chosen test method meets the user's criteria.
- It is the user's responsibility to determine that any test methods and results meet its customers or suppliers' requirements. The user must train its personnel in proper testing techniques.
- It is the user's responsibility to validate the performance of this method for use with any non-certified matrix.

5. Limitation of warranties

- Compact Dry plates are manufactured at ISO 9001:2015 facility. If any Compact Dry plate is proven to be defective by fault of the manufacturer or its authorized distributors, they may replace or, at their discretion, refund the purchase price of any plate. These are the exclusive remedies.

Storage and Shelf Life

Storage: Keep at room temperature (1–30°C)

Shelf life: Eighteen (18) months after manufacturing. Expiration date is printed on outer box label and aluminum bag label.

Package

Compact Dry VP 100 plates	Code 6749
Compact Dry VP 1400 plates	Code 6749-CS

Further Information

Customer Support
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Kit components, operating instructions and interpretation ➤

Operating Procedure

Preparation of specimen

1. **Prepare diluent:** Butterfield's buffered phosphate diluent (KH_2PO_4 at 0.0425 g/L and adjust pH at 7.2; autoclave for sterilization) or Phosphate buffered saline (PBS) is recommended.
2. **Viable count in solid foods:** Weigh 50 g solid sample and add 450 ml Butterfield's buffered phosphate diluent or PBS to the sample. Homogenize this mixed sample by blender. Pipette 1 ml of homogenized specimen (to be further diluted if necessary) in the middle of Compact Dry VP plate.
3. **Viable count in water or liquid food:** Pipette 1 ml of sample (to be diluted if necessary) in the middle of Compact Dry VP plate.
4. **Viable count in swab test sample:** Inoculate 1 ml of wiping solution (to be diluted if necessary) obtained from a cotton swab, in the middle of Compact Dry VP plate. It is recommended to use the Easy Wiping Kit, available as an optional kit.

pH Adjustment: The pH of the product or 1:10 dilution of product should be between 6 and 7 for optimal growth of target microorganisms. If the pH is not between 6 and 7, adjust the pH or the product or 1:10 dilution with 1 N or 0.1 N NaOH for acidic products or 1 N or 0.1 N HCl for alkaline products.

Directions for Compact Dry VP

1. Open aluminum bag, and take out a set of 4 plates.
2. Detach necessary number of plate(s) from a set by bending up and down while pressing the lid. Use a set of four connected plates when serial dilution measuring is intended.
3. Remove cap, and pipette 1 ml of sample in the middle of dry plate. Replace cap. The specimen diffuses automatically and evenly on the sheet (total medium of 20 cm^2) to transform it into gel within seconds.
4. Write the appropriate information on the plate, turn over, and place in incubator. Incubate 19 ± 1 hours for VP at 35 ± 2 °C.
5. From the backside of the plate, count the number of colonies in the medium. White paper placed under the plate can make colony counting easier. For large numbers of colonies, use the grids carved on the backside consisting of 1 cm x 1 cm, or 0.5 cm x 0.5 cm, at the four corners.

Precautions for Use

1. During inoculation, do not touch the surface of plate, and be careful to avoid any contamination by falling microorganism.
2. During incubation, keep the lid tight to avoid any possible dehydration.
3. It is recommended to use a Stomacher bag with filter to eliminate risks of contamination with tiny pieces of food.
4. Detection limit of Compact Dry VP is between 1–300 cfu/plate. Specimen should be diluted by buffer solution to the level of concentration of less than 300 cfu/plate. Buffered Sodium Chloride Peptone Solution (pH 7.0) may be recommended.
5. If bacteria more than 10^4 cfu were inoculated on a plate, no colonies are formed, but the entire plate will become colored.
6. If the nature of sample affects the reaction of the medium, inoculate the sample only after the factor is eliminated by means such as dilution. For instance, samples with high viscosity, colored, reacted with redox indicator, and too high or too low a pH.

Interpretation

The Compact Dry plate contains specific chromogenic enzyme substrate.

V. parahaemolyticus grow to develop blue/blue-green colonies. *V. vulnificus, V. cholerae,* and *V. mimicus* grow to develop pink/magenta colonies.

Precaution for interpretation

1. The full plate size is 20 cm^2. The plate's backside contains a carved grid of 1 cm x 1 cm and 0.5 cm x 0.5 cm to make colony counting easier. If large numbers of colonies are present on the medium, the total viable count can be obtained by averaging the number of colonies per large grid (1 cm x 1 cm), counted from several grids, and multiplying by 20.
2. Some coliforms and *enterococci* may grow and form blue colonies. It is the user's responsibility in selecting any identification test methods to identify these colonies.

