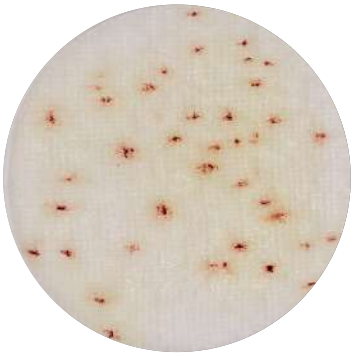
Compact Dry™PA

Ready-to-Use Medium for

Pseudomonas Aeruginosa



Background

Pseudomonas ssp. are Gram-negative bacteria that can survive a multiply at low temperatures. *Pseudomonas ssp.* are know as casual agents of food spoilage in refrigerated products such as red meat, poultry fish and dairy.

The bacterium is ubiquitous in nature and can thrive in soil, freshwater, and the marine environment. Therefore in addition to food products, they are also known to contaminate the clinical environment, cosmetic, pharmaceutical products.

To save the time of operator and make it possible for anyone to perform the microbial count test without difficulty, Shimadzu Diagnostics Corporation has successfully developed Compact Dry PA based on new concept and technology applicable for almost all food industries.

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.
3. Sample diffuses automatically and evenly into the plate.
4. Nineteen month shelf life at room temperature.
5. Clear color development by redox indicator: Isolated colonies can be subcultured individually to other media for confirmation.

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.

Storage and Shelf Life

Storage: Keep at room temperature (1 – 30°C)
Shelf life: Nineteen (19) months after manufacturing. Expiration date is printed on outer box label and aluminum pouch label.

Package

Compact Dry PA 100 plates	Code 54062
Compact Dry PA 1400 plates	Code 54062-cs

Further Information

Customer Support

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Kit components, operating instructions and interpretation ➤

Intended Use

This product is intended for use by microbiologists for the enumeration of Pseudomonas Aeruginosa in food and related samples

Certification by MICROVAL

Compact Dry PA has been validated and certified in accordance with ISO 17994:2014, for enumeration of total Pseudomonas Aeruginosa in a broad range of water types for human consumption, certificate number 2017LR66.

Test Kit Components

1. Compact Dry PA Plates

Apparatus

1. Blender or Stomacher™ or equivalent for homogenizing sample
2. Pipets – 1 mL
3. Incubator – 48 ± 3 hours at 36 ± 1°C

Operating Procedure

Preparation of specimen

Viable count in solid food products.

- Add appropriate volume of buffer solution (e.g. PBS, 1 part solid product + 9 parts buffer) to the sample and homogenize using a stomacher and suitable stomacher bags.
- Add 1 ml of homogenized sample (dilute if necessary) on the middle of the Compact Dry plate.

Viable count in water.

- Add 1 ml diluent, e.g. Peptone water or other appropriate diluent according to EN ISO 6887 in the middle of the plate.
- Filter100 ml of water sample (or more e.g. 250 ml for bottled water) using a 47 mm diameter, sterile membrane with 0.45 µm pore size.
- Directly after the end of filtration apply the filter on the pre-moisturized Compact Dry plate. Take care that the filtration side is upwards.

Direction for CompactDry PA

1. Open the aluminum pouch and take out a set of 4 plates.
2. Detach the necessary number of plates 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. Remove cap from plate, pipette 1 ml of sample in the middle of the plate and replace the lid. The specimen diffuses automatically and evenly over the entire sheetto transform it into a gel within seconds.
4. Write the appropriate sample information in the label section. Invert the cap and place in incubator at 36 ± 1°C during 48 ± 3 h.
5. From the backside of the plate, count the number of colonies (colored and colorless) 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.
6. Enumeration range of CompactDry PA is 1–300 cfu/plate. Specimen should be diluted in buffer to obtain a concentration level less than 300 cfu/plate.

Precautions for Use

1. Do not use CompactDry PA for human and animal diagnosis.
2. To avoid microbial contamination, do not touch the surface of the plate during inoculation.
3. During incubation, keep lid tight to avoid any possible dehydration.
4. Use of filtered stomacher bags is recommended to eliminate risk of carryover of particulates onto the surface of the medium.
5. If more than 10 cfu/ml were innoculated onto a plate, no distringuishable colored colonies will form and the entire plate will become colored.
6. If the nature of the sample affects the reaction of the medium, inoculate the sample only after the factor has been eliminated by means such as dilution, pH adjustment or other. This may include samples with high viscosity, that are colored, that react with the redox indicator, or that have too high or too low pH.

Interpretation

1. *Pseudomonas Aeruginosa* grows to develop red colonies surrounded by a greenish yellow halo as the medium contains specific chromogenic enzyme substrate.
2. When using the membrane filtration method. Count all blue/green colonies as confirmed *P. Aeruginosa* Examine membrane under UV light and count non blue/green colonies that fluoresce as presumptive *P. Aeruginosa.* and confirm with acetamide broth. Also, count all reddish-brown colonies that do not fluoresce as presumptive *P. Aeruginosa* and confirm using acetamide broth, oxidase test and Kings B media
3. The full plate size is 20 cm^2. The backside contains carved grids 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 could be obtained by averaging the number of colonies per large grid (1cm x 1cm), counted from several grids, and multiplying by 20. Alternatively, the total viable count could be obtained by averaging the number of colonies per small grid (0.5 cm x 0.5 cm), counted from several grids, and multiplying by 80.

