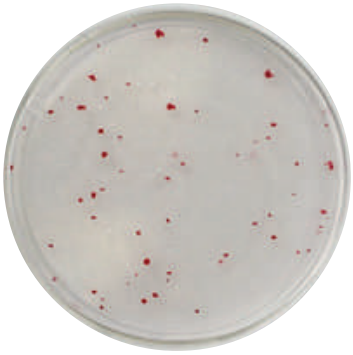
Compact Dry™ AQ

Ready-to-Use Medium for
Heterotrophic Bacteria



Compact Dry™ offers a simple and safe procedure to detect and quantify microorganisms in foods, beverages, raw materials, cosmetics, pharmaceuticals, and environmental samples.

Heterotrophs are a group of microorganisms, which include bacteria, yeasts and fungi, which use organic carbon as a sole source of energy. Following guidelines set by the WHO, treated drinking water should be free from contaminating microorganisms. Heterotrophic Plate Count (HPC) represents the total microbial count in water, including bacteria, yeast, and mold.

Compact Dry AQ is a ready-to-use selective dehydrated media plate for the detection and enumeration of heterotrophic bacteria in drinking water and ultra-pure water. It is composed of a nutrient-poor culture medium for bacteria adapted to nutrient-poor conditions. The chromogenic substrate results in red heterotrophic bacteria colonies after incubation, allowing simplified visualization and enumeration.

About the Test

Incubation time and temperature:
36 ± 2°C for 44 ± 4 hours
(Filter/SMEWW Method);

22 ± 2°C for 68 ± 4 hours
(ISO6220:1999)

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.

Interpretation: Most of the colonies present on the plate will grow red in color. Yeast tend to grow as pink colonies. Mold grow in a filamentous three-dimensional shape.

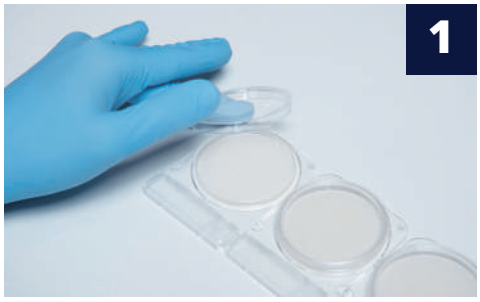
Storage and shelf life: Room temperature, +1°C to +30°C, 24 months.

Manufactured by
Shimadzu Diagnostics Corporation
3-24-6, Ueno, Taito-ku, Tokyo 110-0005 JAPAN
Tel: +81-3-5846-5707
contact@sdc.shimadzu.co.jp

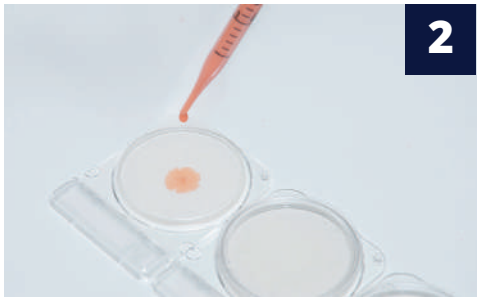
Customer support and sales
sales@advancedfooddiagnostics.com

General Testing Protocol

***Water Filtration: Filter volume of water to be analyzed and aseptically add filter to Compact Dry plate.**

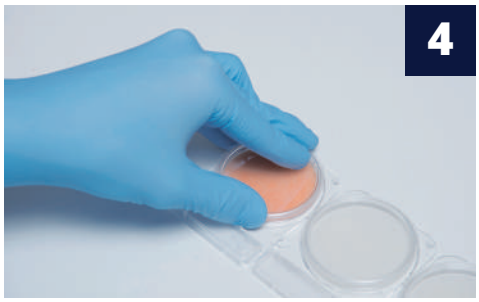


Remove the lid.



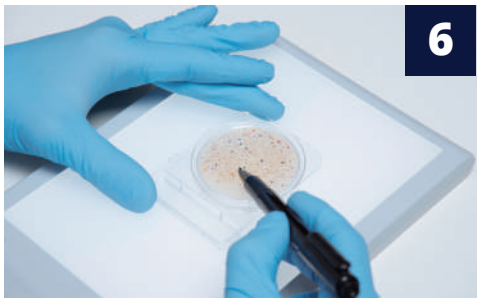
Dispense 1 ml of sample in the middle of the Compact Dry plate.

The sample diffuses passively and evenly across the dehydrated media sheet, rehydrating the dry medium into a gel within seconds.



Replace the lid and label the plate.

Turn over the plate (lid down) and incubate for the appropriate time and temperature.



Following incubation, count the number of colored microbial colonies.

Interpretation guide on reverse

Compact Dry™ AQ

Interpretation

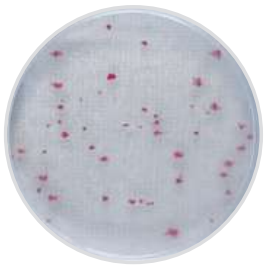
- The growth of heterotrophic microorganisms on the plate will show a red-pink color.
- Mold will present mycelial structure with a three-dimensional shape.
- Count range 1–300 cfu/plate.

Enumeration

Enumeration of colonies can be performed from the front or the back of the Compact Dry plate. Read against a white background with an adequate light source. The grid lines on the back of the plate are useful when high plate counts are present. Colony morphology is best observed on the front of the plate. Colonies can be sampled for further identification by removing the lid and selecting an isolated colony. Use an inoculating loop to transfer to an agar plate or a pipette tip to place into a growth medium. Gently remove a colony taking care not to disturb the surrounding growth medium.

Total number of colonies = 62

Growth of colonies with different types of morphologies are evident with a red/pink color. Each of these colonies must be counted.



Total number of colonies = 58

This plate shows the growth of dispersed colonies with irregular margins. During counting, the central point with contrast must be taken into account as a colony-forming unit.

