

Coliform & E.coli Count Plate User Instructions

1. Principle & Application

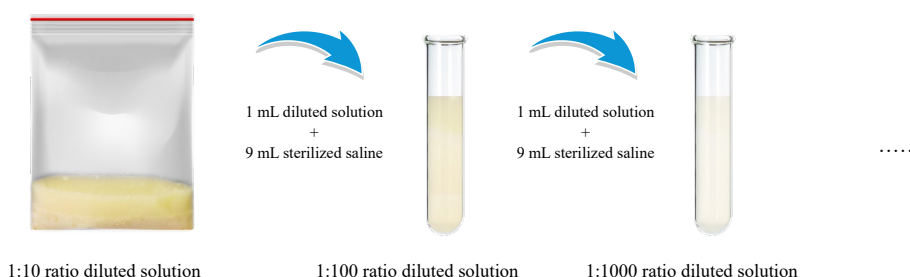
Coliform and *Escherichia coli* (*E. coli*) living in the gut and feces of warm-blooded animals, can cause water pollution and food poisoning.

The *Coliform* & *E.coli* Count Plate contains a pre-prepared disposable medium designed for both *Coliform* and *E. coli* culture with selective medium, cold water-soluble absorbing gelling agent, galactosidase (GAL), and glucuronidase (GUD) as the indicators. For the statistical results, the *E. coli* on the count plate shows blue, the other *Coliform* shows red, and the blue dots plus the red dots were the total number of *Coliform* bacteria. It is intended to rapidly detect the *Coliform* & *E. coli* in food, water samples and the surface hygiene of environmental samples.

2. Procedure & Steps

2.1 Sample preparation

Prepare the 1:10 ratio solution by adding 25 g or 25 mL sample into 225 mL sterile distilled water. Then pipette 1 mL diluted solution and mix it with 9 mL sterilized distilled water to reach the final ration 1:100. A serial of dilutions can be obtained by following the same steps.



2.2 Inoculation

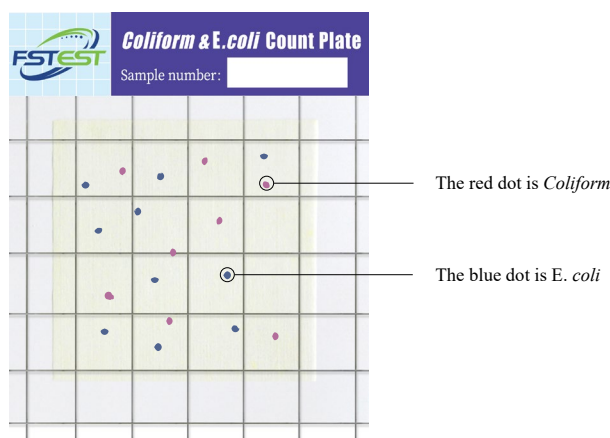
Select 2-3 appropriate dilution ratio to do the following test for food sample. The original sample, like pure water or mineral water without any dilution is also applicable if necessary. Place the count plate onto the sterile lab bench, uncover the film on the surface. Add 1 mL sample solution onto the count plate slowly and evenly, then recover the film and wait for 5 min until the solution becomes dry. Inoculate two count plate for each dilution ratio and include a blank control meanwhile.

2.3 Culture

Pile up the count plates (less than 12 pieces for each pile) and put them back into the original plastic bags and seal. Culture for 15-24 h at $36 \pm 1^\circ\text{C}$ with the film side upward.

3. Read-out

The *E. coli* on the count plate shows blue, the other *Coliform* shows red, and the blue dots plus the red dots were the total number of *Coliform* bacteria. Count the positive plate with the highest dilution ratio.



4. Storage Conditions

The kit can be stored and transported at room temperature within 15 days, and then kept in the refrigerator at 4-10 °C for 18 more months. Once the package is opened, the unused count plate shall be put back into the aluminum foil bag with sealed at 4-10 °C and used up within one month.

5. Additional Information

- 5.1 The *Coliform* count is usually adopted as food hygienic detection indicator in China, while in Europe, the count of *E. coli* is more common used.
- 5.2 If sample solution pH < 7.0, the solution should to be adjusted to pH 7.0-8.0 with sterile alkaline solution.
- 5.3 The sensitivity of *Coliform* & *E.coli* Count Plate could reach up to 0.15 CFU/mL.
- 5.4 It is recommended to reported as too numerous to count if the colonies joint together or a great number of colonies appear on the edge of the plate, but instead of the center.
- 5.5 The method of *Coliform* Count Plate can be referred to the industry standard of Chinese Exit and Entry Inspection and Quarantine (SN/T 1896-2007)

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