



MEIZHENG

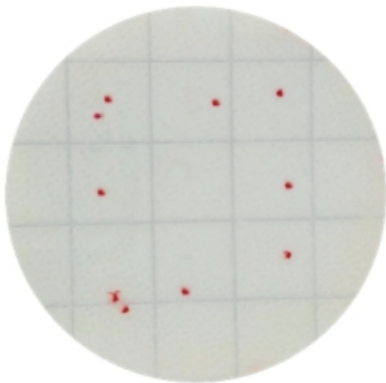
a PerkinElmer company

MicroFast®

# Microbial Count Plates



# MicroFast<sup>®</sup> Aerobic Count Plate

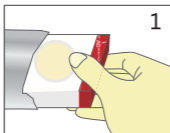


Counting result: 10 CFU

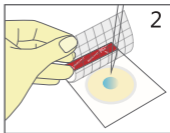
Culture at  $36 \pm 1^\circ\text{C}$  for  $48 \pm 1\text{h}$ . Count all red dots as colonies.

Counting range: 30-300 CFU/mL.

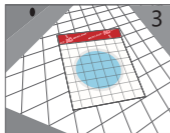
# Operation & Interpretation



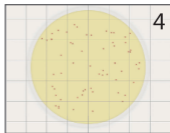
1. Take out the count plate.



2. Inoculate 1mL sample.

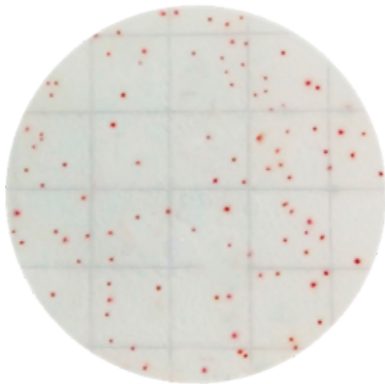


3. Incubate at  $36 \pm 1^\circ\text{C}$  for  $48 \pm 1\text{h}$ .



4. Interpretation: red colonies.

# MicroFast<sup>®</sup> Aerobic Count Plate



Counting result: 101 CFU

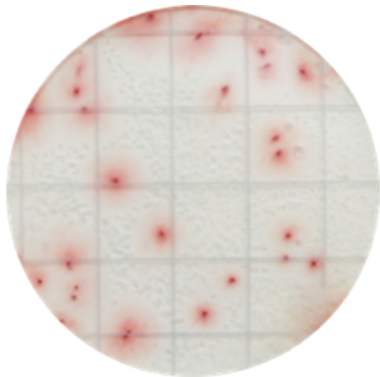
Tiny red colonies should also be counted.

If there are too many colonies, please select several representative squares and determine the average number per square. Multiply the average number by 20 to get the estimated count per plate.

## Storage

1. Sealed count plate should be stored at 2°C- 8°C. Use up within the shelf life.
2. The count plates components are sterilized. Unopened count plates should be stored at 2°C- 8°C. Equilibrate the count plate to room temperature before use.
3. After unsealing, it is necessary to drain the air in the pouch, reseal and store it at room or ambient temperature, away from light. Use it up within one month.
4. When transporting or short-term storage, store the count plate at room temperature.

# MicroFast® Aerobic Count Plate



Counting result: 25 CFU

Culture at  $36 \pm 1$  °C for  $48 \pm 1$ h. Count all red dots as colonies.

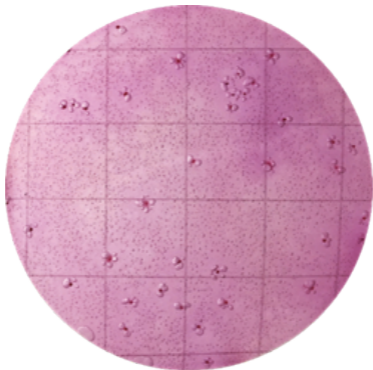
Tiny red colonies should also be counted.

Should there be obvious colony dispersion, a mass of dispersion is recorded as 1 CFU.

# Precautions

1. The count plate should be stacked upwards and no more than 20 pieces during the incubation.
2. Count plate may contain microorganisms that may be a potential biohazard. Follow current industry standards for disposal.
3. Keep the count plate away from ultraviolet, direct sunlight and fluorescent lamp.
4. Do not use the contaminated or damp count plate.
5. If the pH of the sample is too high or too low, it will affect the accuracy of the test results.
6. When uncovering the film, do not touch the culture area of the medium.
7. If there are too many colonies, the detection of positive strains might be affected.
8. The count plate may show a few needle-like black spots, which is normal and does not affect the interpretation of the target strain.
9. If the sample is viscous, diffusion can be aided manually.
10. After adding the sample, bubbles may appear near the barrier, causing the liquid unable to completely diffuse. The phenomenon is normal and does not affect the results.
11. Do not use diluents containing citrate, bisulphite or thiosulphate with MicroFast plates as they could inhibit growth.

# MicroFast® Coliform Count Plate



Counting result: 38 CFU

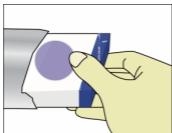
Total coliform and thermotolerant coliform are cultured  
at  $36 \pm 1^\circ\text{C}$  and  $44.5 \pm 0.2^\circ\text{C}$  respectively for 18-24h.

Count gas-producing red colonies.

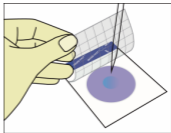
Counting range: 15-150CFU/mL.



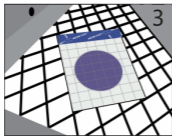
# Operation & Interpretation



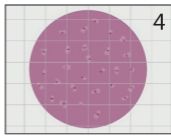
1. Take out the count plate.



2. Inoculate 1mL sample.

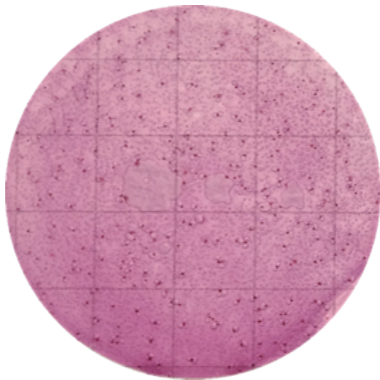


3. Total coliform and thermotolerant coliform are cultured at  $36 \pm 1^\circ\text{C}$  and  $44.5 \pm 0.2^\circ\text{C}$  respectively for 18-24h.



4. Interpretation: red colonies with bubbles.

# MicroFast® Coliform Count Plate



Counting result: TNTC

Total coliform and thermotolerant coliform are cultured  
at  $36 \pm 1^\circ\text{C}$  and  $44.5 \pm 0.2^\circ\text{C}$  respectively for 18-24h.

Count gas-producing red colonies.

# Gas generated colonies interpretation instructions

## 1. Bubbles generated by colonies:

- a. Two colonies may be connected to one bubble.
- b. A colony can be connected with one bubble or 2-3 bubbles or multiple bubbles.
- c. Bubbles can be generated around the colonies and are not connected to the colonies.
- d. Bubbles and colonies are in the same position, which may break the colonies and cause colonies to grow on the edges of the bubbles.

## 2. Bubbles caused by other reasons:

- a. Bubbles will be generated due to improper operation. In this case, the bubbles are not connected with the colonies, and the bubbles are large and the edges are irregular.
- b. Foam-rich samples will cause bubbles on the count plate.

# Coliform Count Plate gas generated colonies interpretation

**Bubbles can be generated around the colonies and are not connected to the colonies.**



Counting result: 1 CFU



Counting result: 1 CFU

**A colony can be connected with one bubble or 2-3 bubbles or multiple bubbles.**



Counting result: 1 CFU



Counting result: 1 CFU

# Coliform Count Plate gas generated colonies interpretation

Bubbles and colonies are in the same position, which may break the colonies and causing colonies to grow on the edges of the bubbles.



Counting result: 1 CFU



Counting result: 2 CFU

Two colonies may be connected to one or several bubbles.

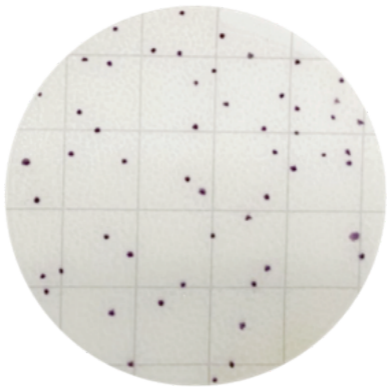


Counting result: 2 CFU



Counting result: 2 CFU

# MicroFast<sup>®</sup> Yeast & Mold Count Plate



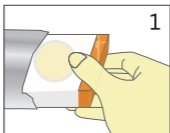
Yeast: Counting result: 55 CFU

Culture at  $28 \pm 1^\circ\text{C}$  for 48h.

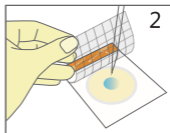
Count red-violet colonies with clear edges and uniform color.

Counting range: 10-150 CFU/mL.

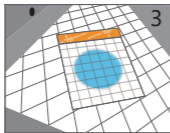
# Operation & Interpretation



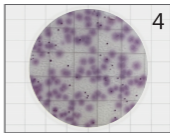
1. Take out the count plate.



2. Inoculate 1mL sample.

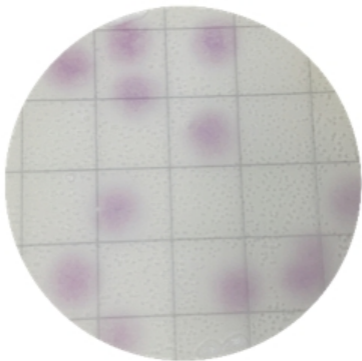


3. Incubate at  $28 \pm 1^\circ\text{C}$  for 48h for yeast, 72h for mold.



4. Interpretation:  
Yeast: violet-red colonies;  
Mold: light pink to violet-red colonies.

# MicroFast<sup>®</sup> Yeast & Mold Count Plate



**Mold: Counting result: 11 CFU**

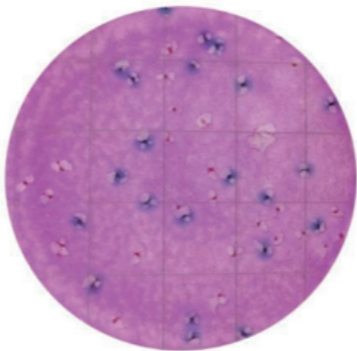
Culture at  $28 \pm 1^\circ\text{C}$  for 72h. Count large colonies with diffuse edges. Color intensity is from light pinky to violet-red. The color is uniform. Counting range  $< 30 \text{ CFU/mL}$ .



## Storage

1. Sealed count plate should be stored at 2°C- 8°C. Use up within the shelf life.
2. The count plates components are sterilized. Un-opened count plates should be stored at 2°C- 8°C. Equilibrate the count plate to room temperature before use.
3. After unsealing, it is necessary to drain the air in the pouch, reseal and store it at room or ambient temperature, away from light. Use it up within one month.
4. When transporting or short-term storage, store the count plate at room temperature.

# MicroFast<sup>®</sup> Coliform & E. coli Count Plate



Counting result: Escherichia coli 22 CFU, Coliform 46 CFU.

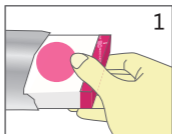
Culture at  $36 \pm 1$  °C for  $24 \pm 2$ h.

Escherichia coli: count blue colonies with bubbles.

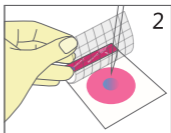
Coliform: count blue and red colonies with bubbles.

Counting range: 10-100 CFU/mL.

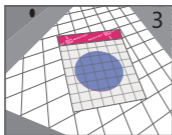
# Operation & Interpretation



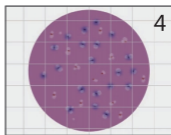
1. Take out the count plate.



2. Inoculate 1mL sample.



3. Incubate at  $36 \pm 1^\circ\text{C}$  for  $24 \pm 2\text{h}$ .



4. Interpretation:  
E.coli: blue colonies with bubbles;  
Coliforms: blue and red colonies with bubbles.

# Coliform & E. coli Count Plate gas generated colonies interpretation

**Bubbles can be generated around the colonies and are not connected to the colonies.**



Counting result: 1 CFU



Counting result: 1 CFU

**A colony can be connected with one bubble or 2-3 bubbles or multiple bubbles.**



Counting result: 1 CFU



Counting result: 1 CFU

# Coliform & E. coli Count Plate gas generated colonies interpretation

Bubbles and colonies are in the same position, which may break the colonies and causing colonies to grow on the edges of the bubbles.



Counting result: 1 CFU



Counting result: 2 CFU

Two colonies may be connected to one or several bubbles.

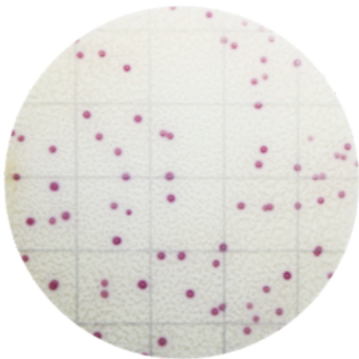


Counting result: 2 CFU



Counting result: 2 CFU

# MicroFast<sup>®</sup> Staphylococcus aureus Count Plate



Counting result: 71 CFU

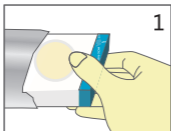
Culture at  $36 \pm 1$  °C for  $24 \pm 2$ h. Count all pink colonies.

Count range: 15-150 CFU/mL.

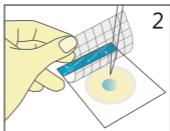
Staphylococcus aureus colonies appear pink.

For suspected colonies, the culture time can be appropriately extended to facilitate the interpretation.

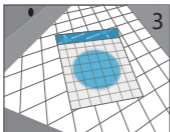
# Operation & Interpretation



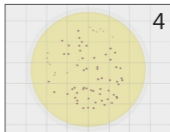
1. Take out the count plate.



2. Quantitative: Inoculate 1mL sample.

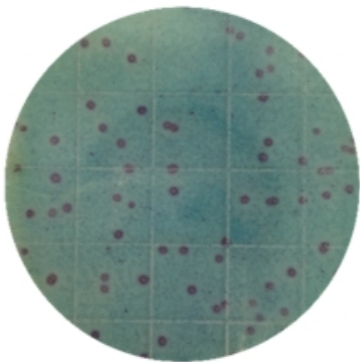


3. Incubate at  $36 \pm 1^\circ\text{C}$  for  $24 \pm 2\text{h}$ .



4. Interpretation:  
Quantitative: all pink colonies.

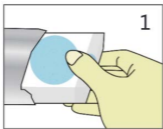
# MicroFast<sup>®</sup> Staphylococcus aureus Confirmation Plate



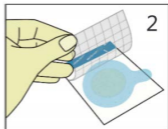
Counting result: 59 CFU  
Culture at  $36 \pm 1$  °C for 1.5-4h.  
Count all dark pink colonies.



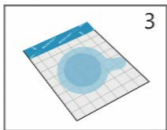
# Operation & Interpretation



1. Open the aluminum foil bag and take out the plates.



2. Lift the film, cover confirmation plate on top of culture area with smooth side up.

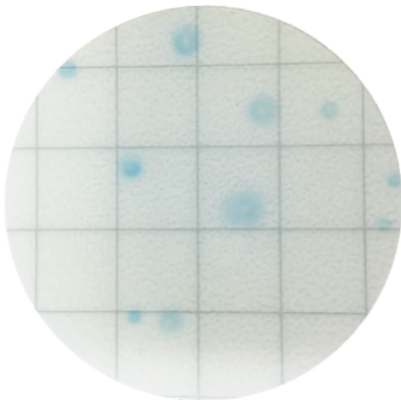


3. Incubate at  $36 \pm 1^\circ\text{C}$  for 1.5–4h.



4. Interpretation: all dark pink colonies.

# MicroFast® Bacillus cereus Count Plate



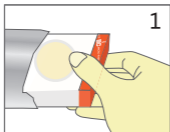
Counting result: 10 CFU

Culture at 30 °C for 18-24h.

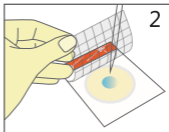
Count all blue-green cluster colonies.

Counting range: 10-100 CFU/mL.

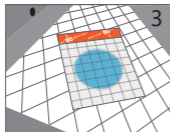
# Operation & Interpretation



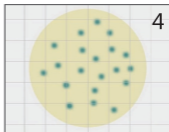
1. Take out the count plate.



2. Inoculate 1mL sample.

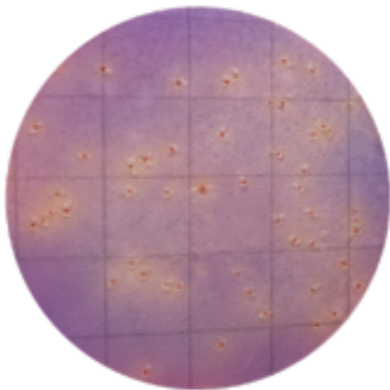


3. Incubate at 30°C for 18–24h.



4. Interpretation: blue-green cluster colonies.

# MicroFast® Enterobacteriaceae Count Plate



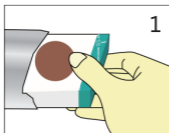
Counting result (colonies with bubbles): 51 CFU

Culture at  $36 \pm 1$  °C for 18-24h.

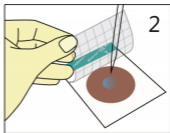
Count all red and yellow colonies.

Counting range: 15-150 CFU/mL.

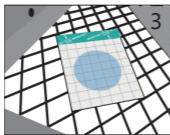
# Operation & Interpretation



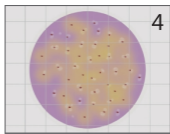
1. Take out the count plate.



2. Inoculate 1mL sample.

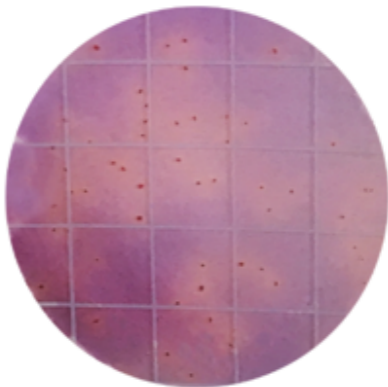


3. Incubate at  $36 \pm 1^\circ\text{C}$  for 18–24h.



4. Interpretation: red colonies with yellow halo and with or without bubbles.

# MicroFast® Enterobacteriaceae Count Plate



Counting result (colonies without bubbles): 53 CFU

Culture at  $36 \pm 1^\circ\text{C}$  for 18-24h.

Count all red and yellow colonies.

Counting range: 15-150 CFU/mL.

# Gas generated colonies interpretation instructions

## 1. Bubbles generated by colonies:

- a. Two colonies may be connected to one bubble.
- b. A colony can be connected with one bubble or 2-3 bubbles or multiple bubbles.
- c. Bubbles can be generated around the colonies and are not connected to the colonies.
- d. Bubbles and colonies are in the same position, which may break the colonies and cause colonies to grow on the edges of the bubbles.







## 2. Bubbles caused by other reasons:

- a. Bubbles will be generated due to improper operation. In this case, the bubbles are not connected with the colonies, and the bubbles are large and the edges are irregular.
- b. Foam-rich samples will cause bubbles on the count plate.

## 3. Explanation of colony generated acid:

Too many colonies may cause the entire count plate to turn yellow.

# Ordering Information

Catalogue Number	Product Name		Specification
LR1001	MicroFast® Aerobic Count Plate		25T
LR1002	MicroFast® Coliform Count Plate		25T
LR1003	MicroFast® Yeast & Mold Count Plate		25T
LR1005	MicroFast® Staphylococcus aureus Count Plate		25T
LR1005Q	MicroFast® Staphylococcus aureus Confirmation Plate		25T
LR1007	MicroFast® Coliform & E.coli Count Plate		25T
LR1010	MicroFast® Bacillus cereus Count Plate		25T
LR1011	MicroFast® Enterobacteriaceae Count		25T

For more information on our products, please contact us on  
(02) 9822 3666 or at [scientific.enquiries@amsl.com.au](mailto:scientific.enquiries@amsl.com.au)

[amsl.com.au](http://amsl.com.au)

