



Easy Plate™



**“A solution that makes
microbiological testing
for food easier! “**

PRODUCTS



Easy Plate™ AC



Aerobic Bacteria

Easy Plate™ CC



Coliform

Easy Plate™ EC



E.Coli/ Coliform

Easy Plate™ SA



Staphylococcus aureus

Easy Plate™ YM-R



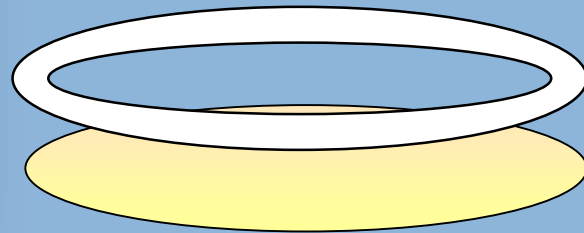
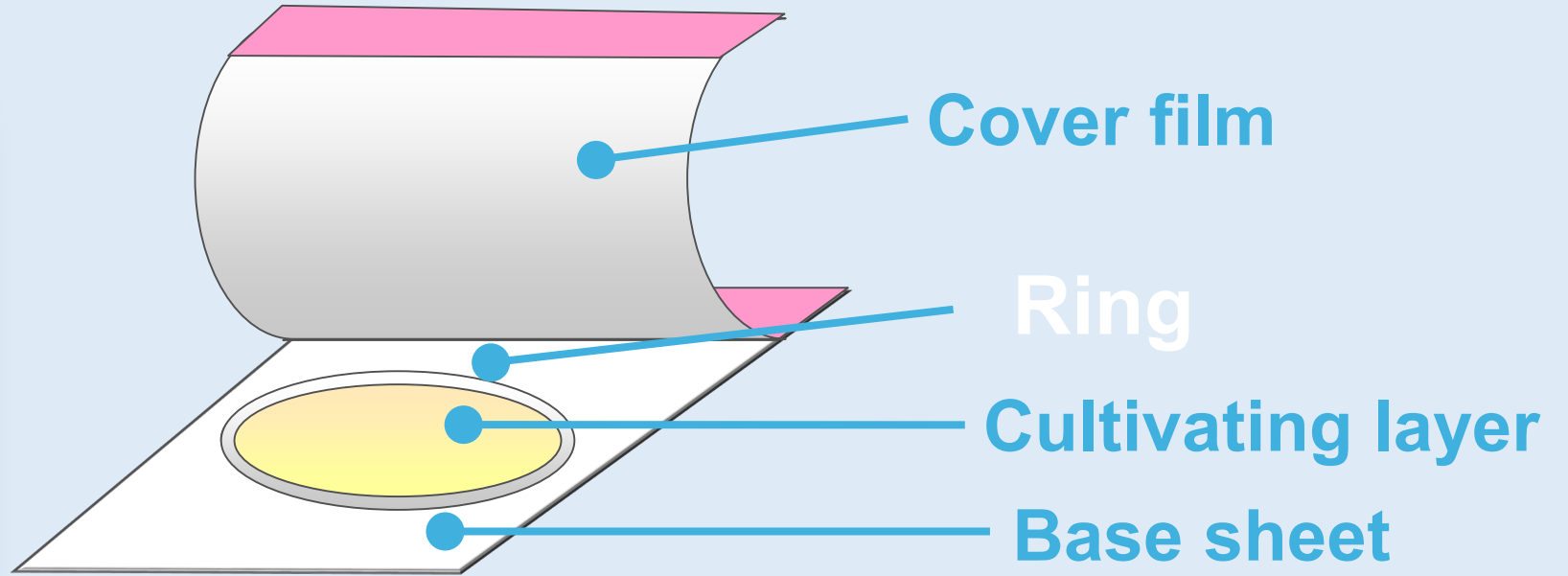
Rapid type
Yeast and Mold

Easy Plate™ EB



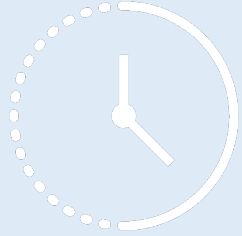
Enterobacteriaceae

● ● STRUCTURE



Ring that prevents spillage
Does not require spreader
3 minutes for the medium to harden



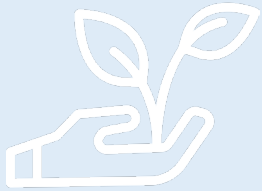


Simple & Reduce time

Preparation is not needed!

1ml of sample

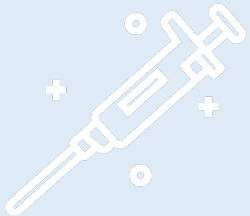
No spreader required!



Space Saving & Eco-friendly

95% space saving for cultivation

Easy dispose and reduces waste



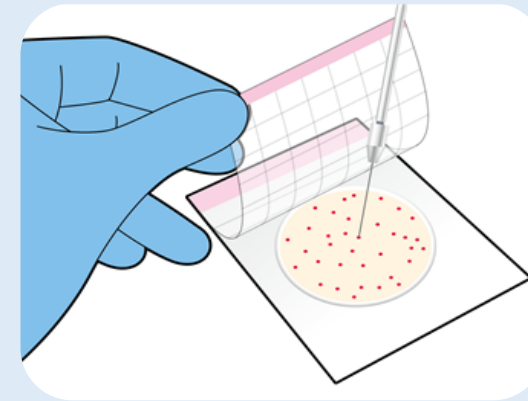
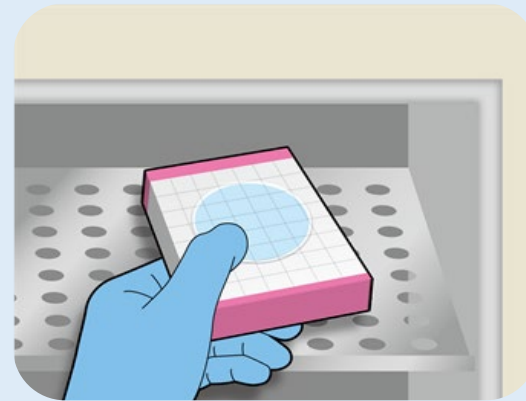
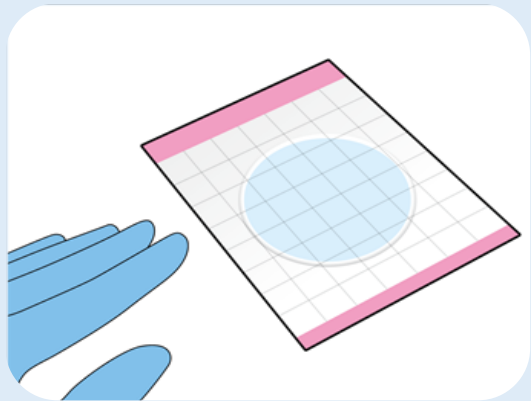
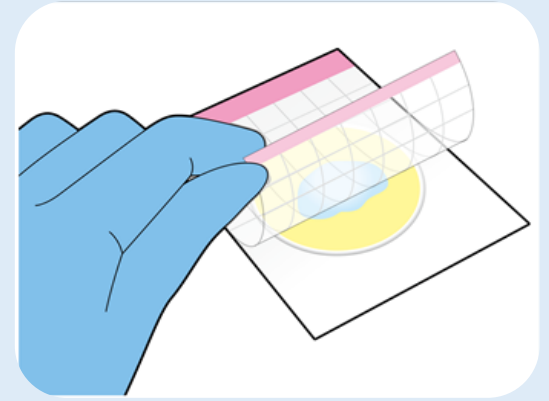
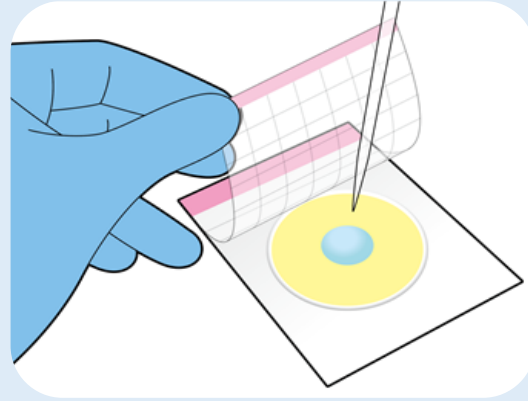
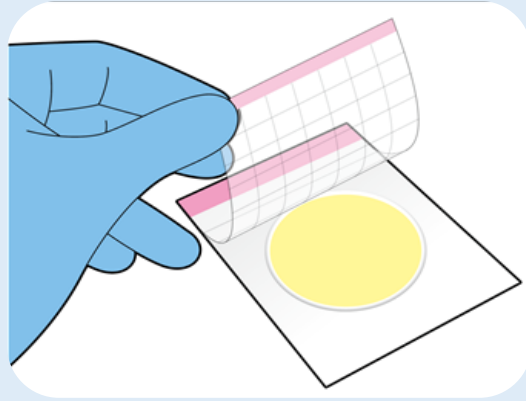
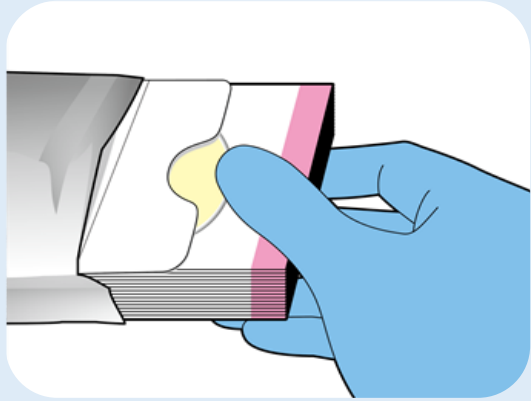
Accuracy & Visibility

Good visibility of colonies

AOAC PTM certified (AC,CC,EC,SA)

High correlation between various agar medium

PROCEDURE



Optional

Colony Counting System



● ● Easy Plate AC



Object microorganism

Aerobic Bacteria

Incubation time

48 ± 2 hours

Incubation temperature

35 ± 1°C

Storage condition

2 – 8°C

Shelf life

18 months

Certification

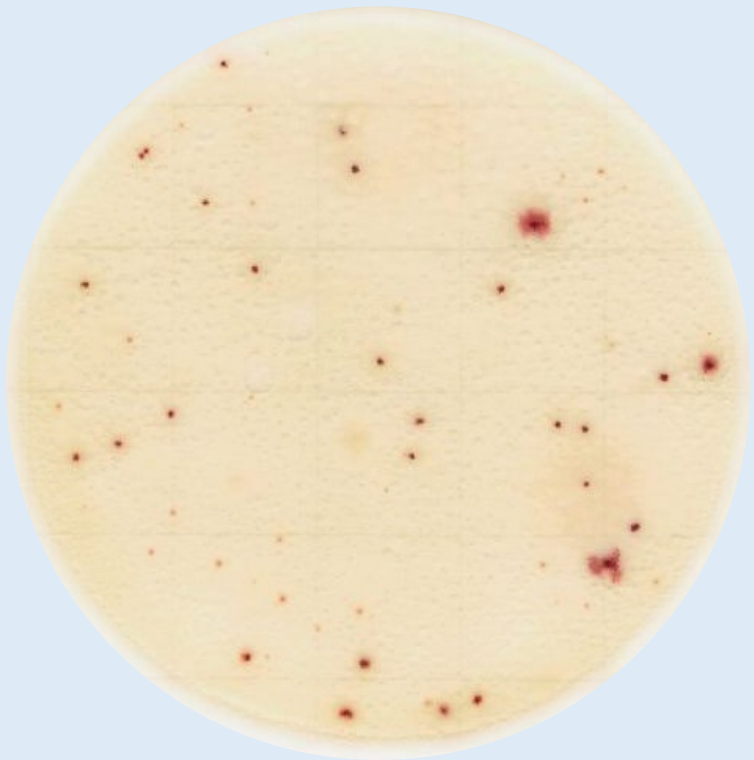
AOAC RI PTM

MicroVal



● ● Easy Plate AC

Easily distinguishable brightly colored colonies even in the presence of food residue



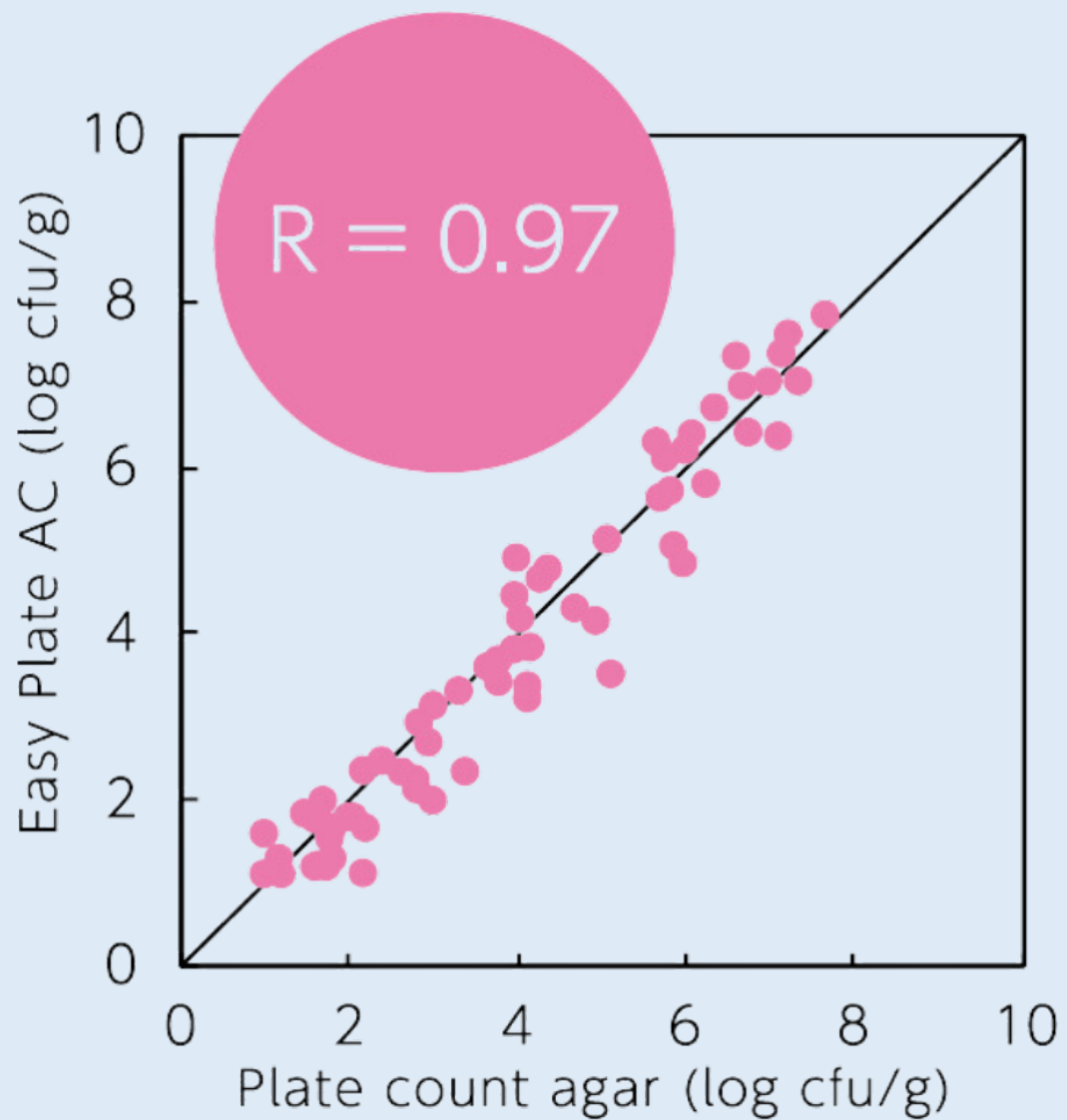
Easy Plate AC

Pancake mix



Plate count agar

● ● Easy Plate AC



High correlation with the plate count agar in various foods.

*According to the research by DNP



● ● Easy Plate AC

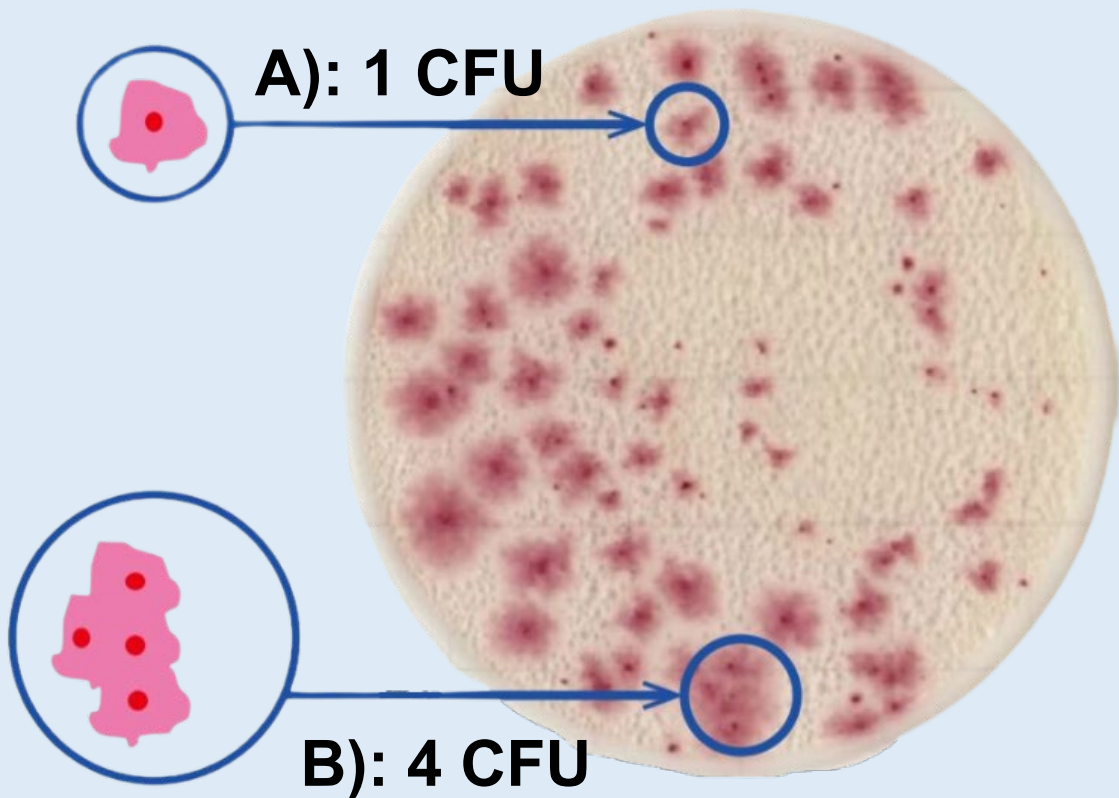
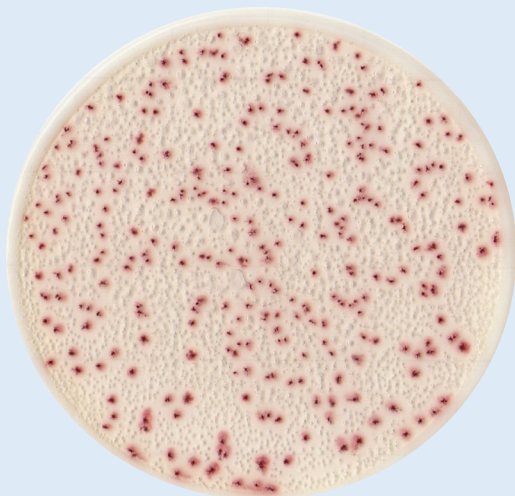


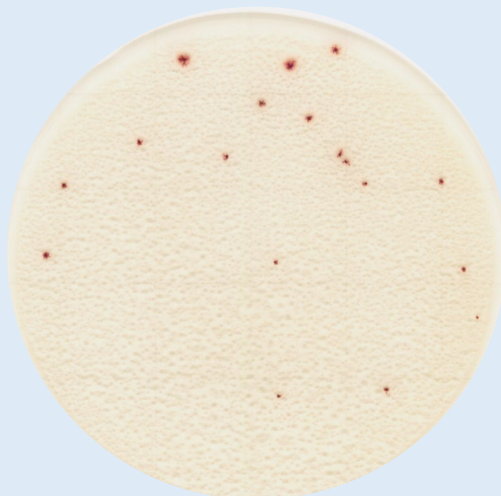
Plate count interpretation

Count the central dark area as a single colony.

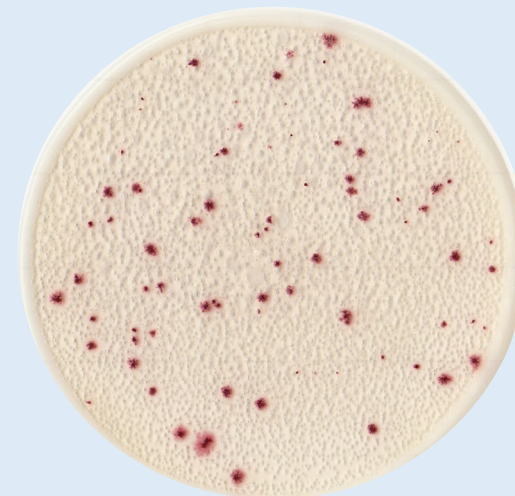
● ● Easy Plate AC- Strains



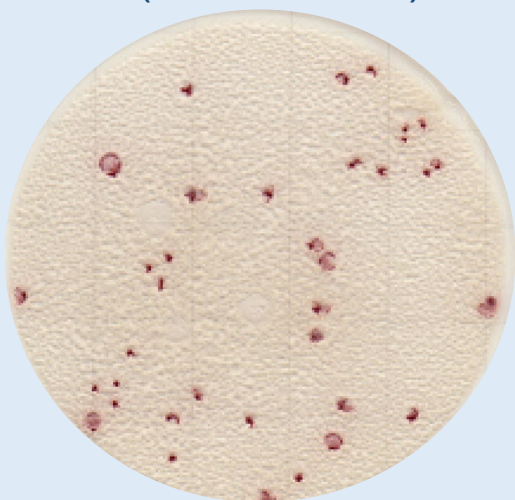
Bacillus subtilis
(NBRC 3134)



Bacillus cereus
(NBRC 15305)



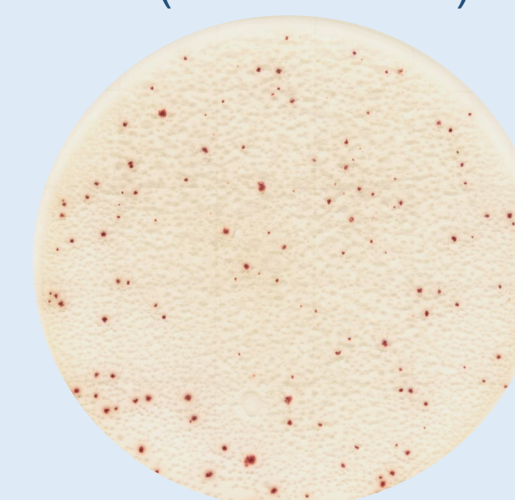
Bacillus licheniformis
(NBRC 12200)



Escherichia coli
(NBRC 15034)



Proteus mirabilis
(NBRC 105697)

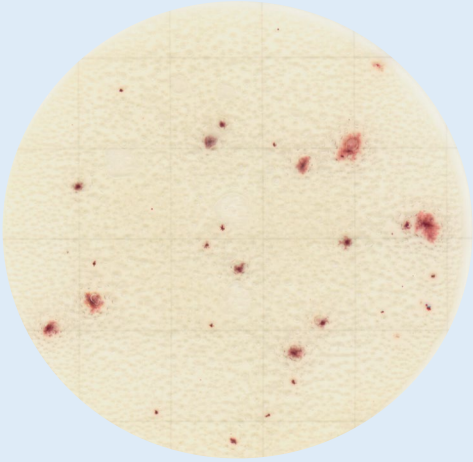


Staphylococcus aureus
(ATCC 25923)

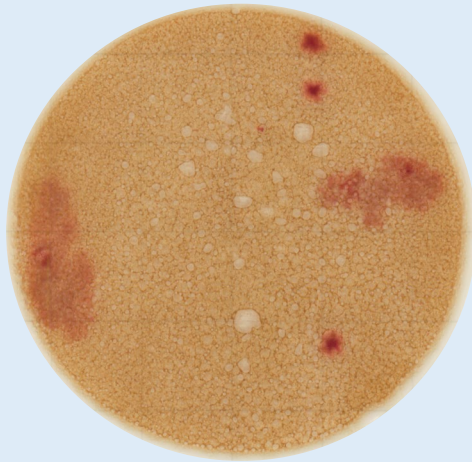
● ● Easy Plate AC- Foods



Raw ground chicken



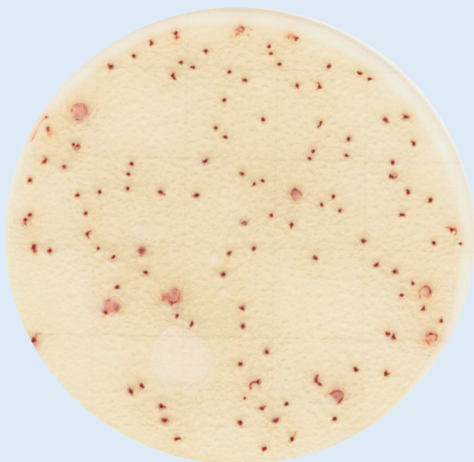
Raw bean sprouts



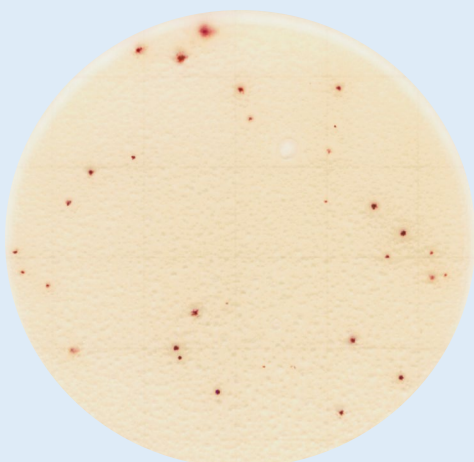
Chocolate



Green tea leaf



Icecream+*E.coli*



Raw salmon

● ● Easy Plate CC



Object microorganism

Coliform

Incubation time

24 ± 1 hours

Incubation temperature

35 ± 1°C

Storage condition

2 – 8°C

Shelf life

18 months

Certification

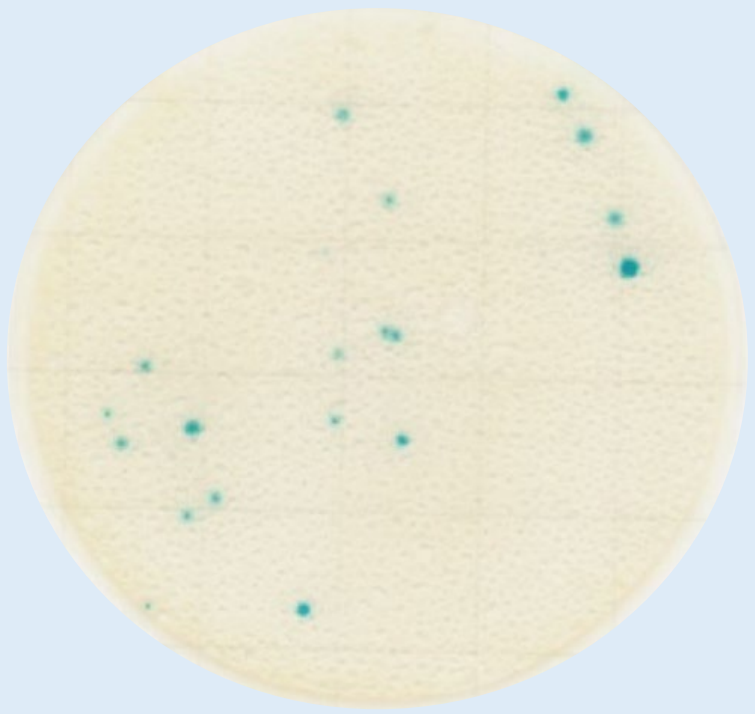
AOAC RI PTM

MicroVal

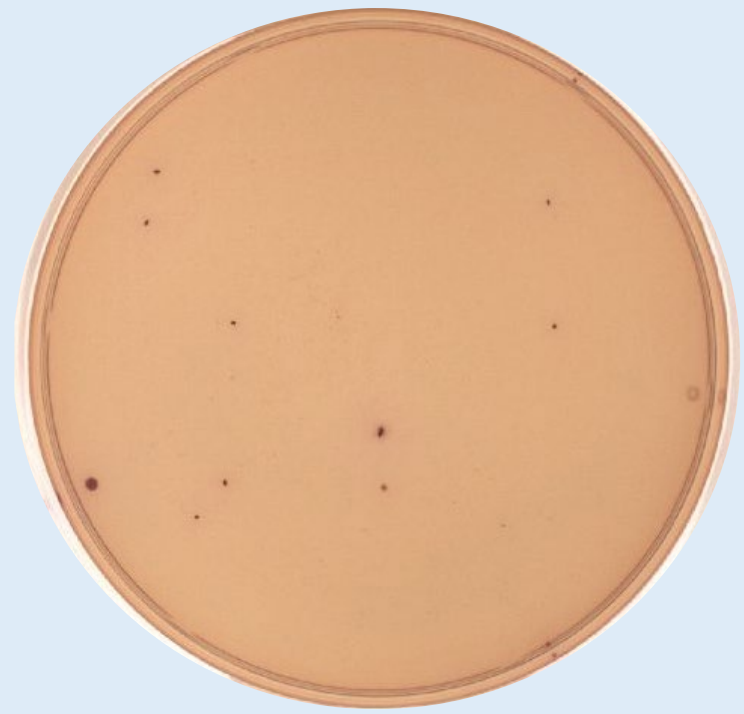


● ● Easy Plate CC

**Easily distinguishable brightly colored colonies in 24 hours!
Unnecessary to confirm the presence or absence of
air bubbles or the size of the colonies.**



Easy Plate CC

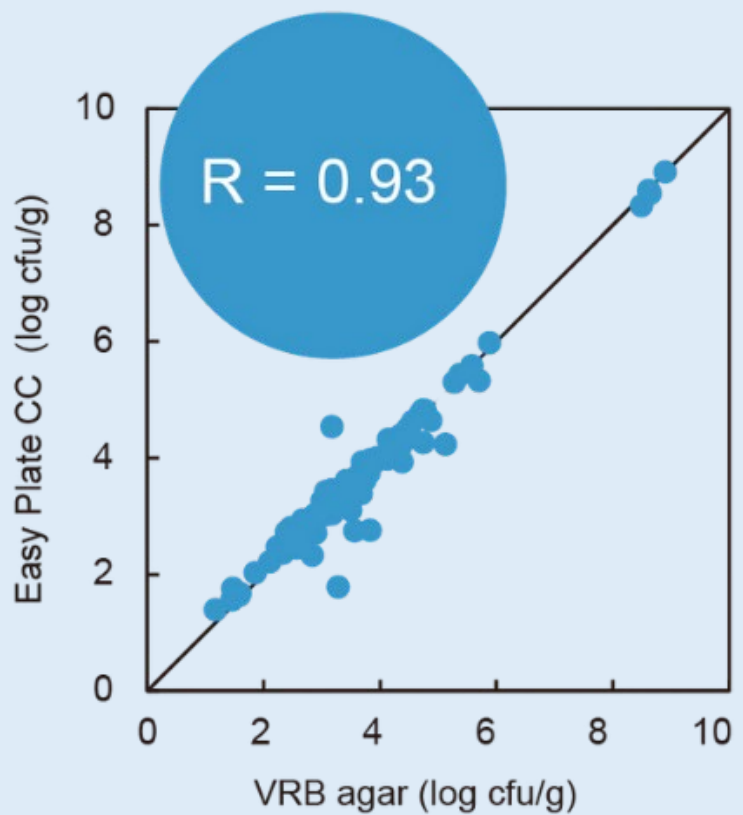
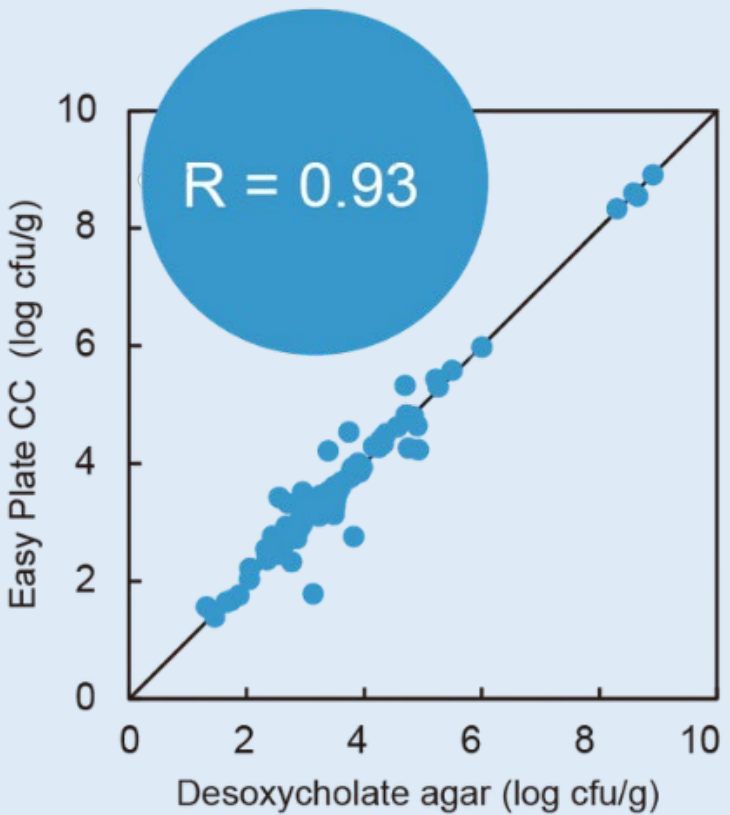


Desoxycholate agar

Raw pork loin



● ● Easy Plate CC



High correlation with the deoxycholate agar and VRB agar in various foods.

*According to the research by DNP



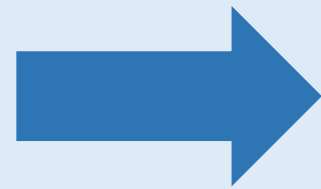
● ● Easy Plate CC

Coloring of the plate surface caused by enzymes contained in foods

Dilution



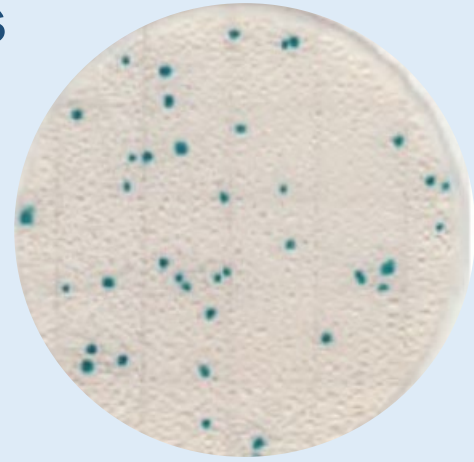
When coliforms are presents



Powdered cheese sample
(diluted 10 times)



Powdered cheese sample
(diluted 10² times)

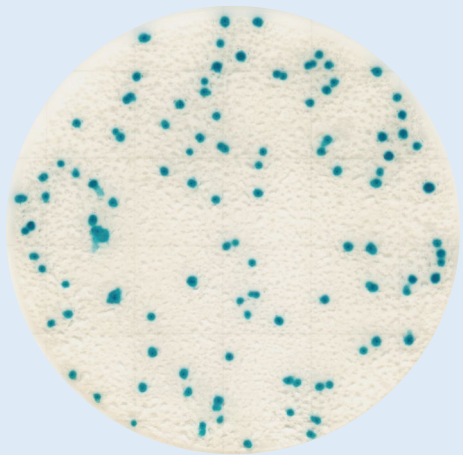


Powdered cheese sample
(diluted 10² times)
+K.pneumoniae

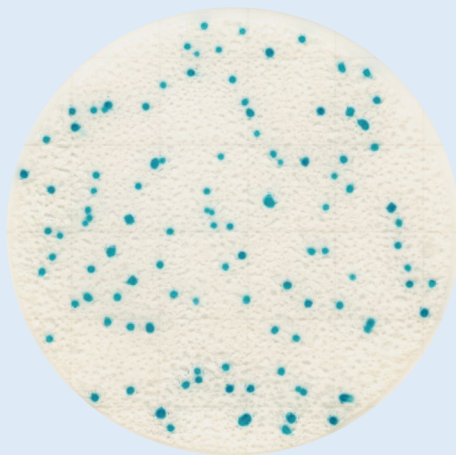
In some unheated foods and dairy products, residual enzymes in the food may cause blue coloring to develop over the entire medium. If the visibility is affected, dilution might help.



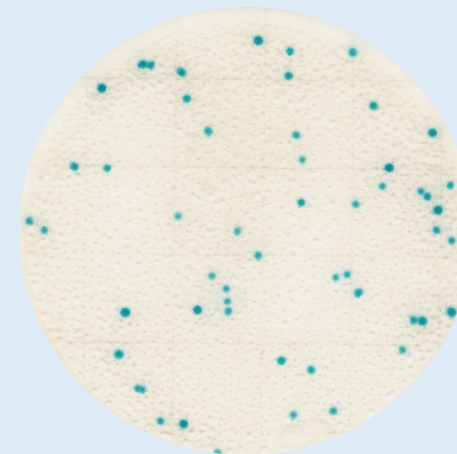
● ● Easy Plate CC- Strains



Escherichia coli
(NBRC 15034)



Citrobacter freundii
(NBRC 12681)



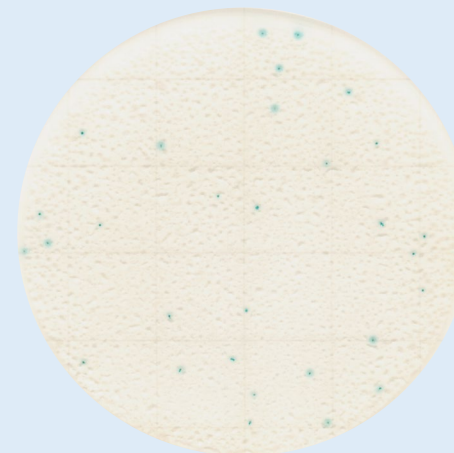
Klebsiella pneumoniae
(NBRC 14940)



Enterobacter aerogenes
(NBRC 13534)

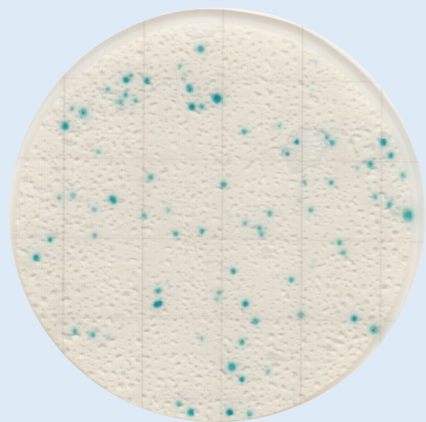


Enterobacter cloacae
(NBRC 13536)

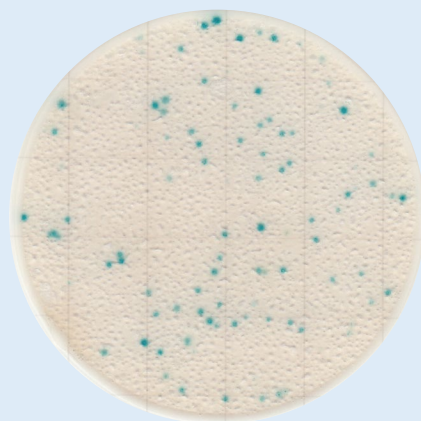


Escherichia fergusonii
(NBRC 102419)

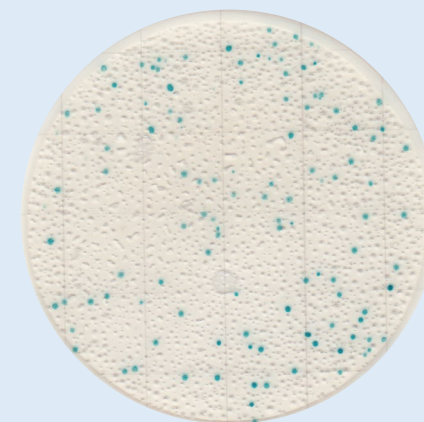
● ● Easy Plate CC- Strains



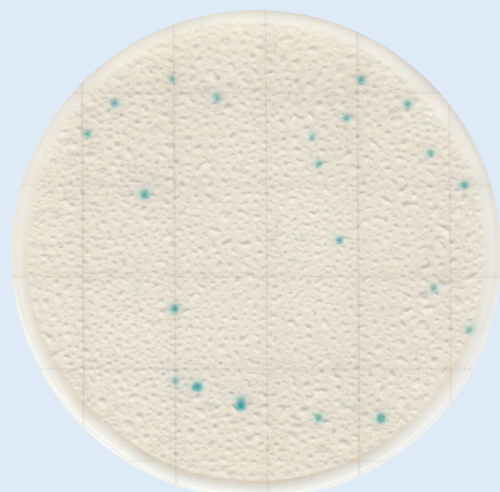
Raw ground chicken



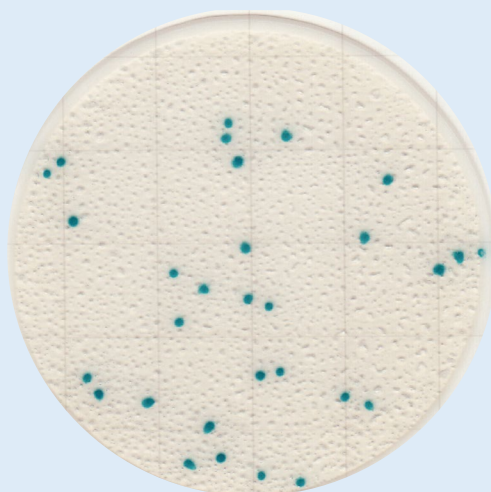
Raw ground pork



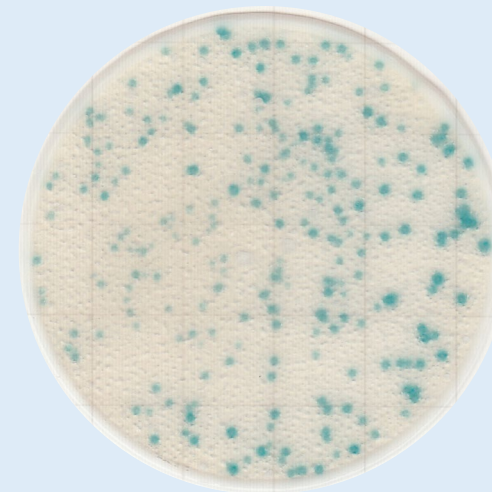
Radish sprouts



Raw tuna



Cookie+*E.coli*



Pasteurized milk+
K.pneumoniae

● ● Easy Plate EC



Object microorganism

E.coli/ Coliform

Incubation time

24 ± 1 hours

Incubation temperature

35 ± 1°C

Storage condition

2 – 8°C

Shelf life

18 months

Certification

AOAC RI PTM

MicroVal



● ● Easy Plate EC

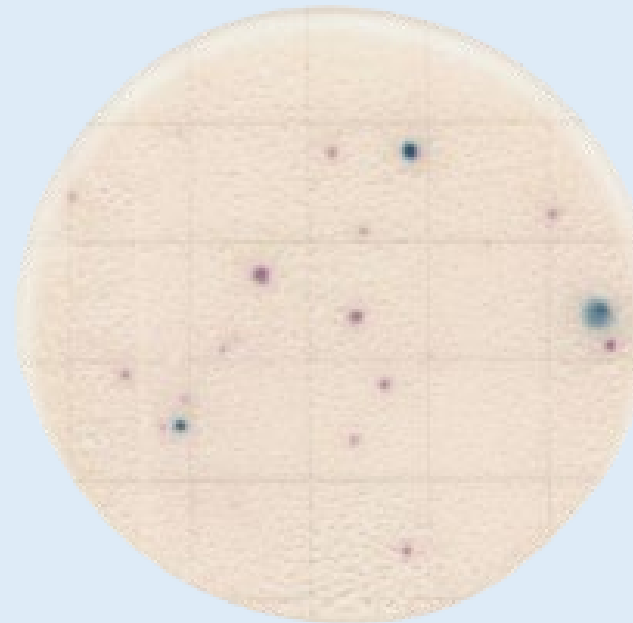
**Easily distinguishable brightly colored colonies in 24 hours!
Unnecessary to confirm the presence or absence of
air bubbles or the size of the colonies.**



Escherichia coli
(NBRC 15034)



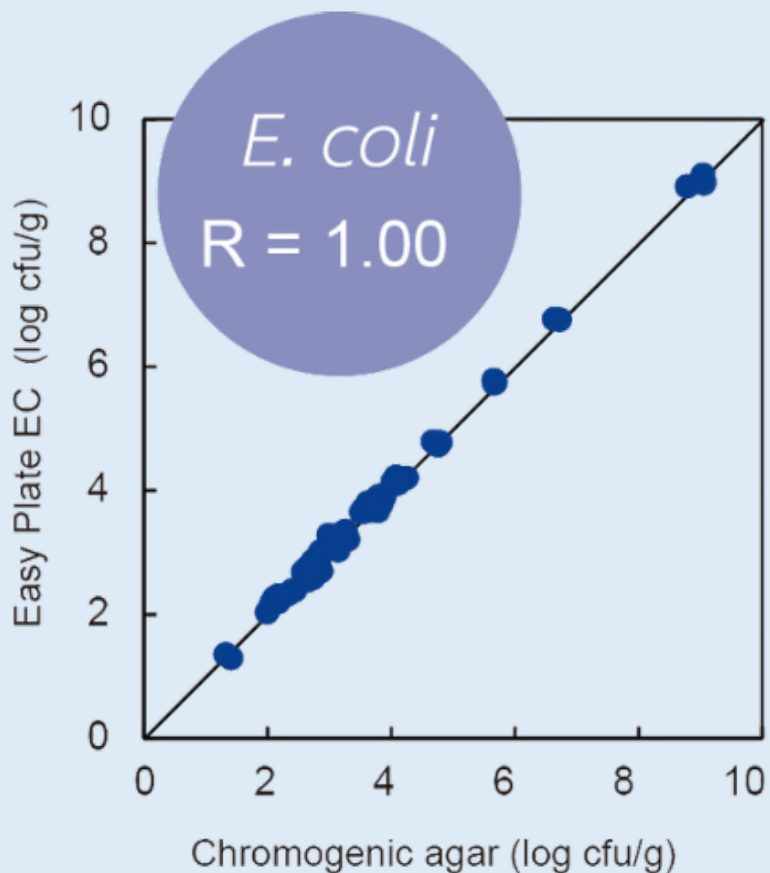
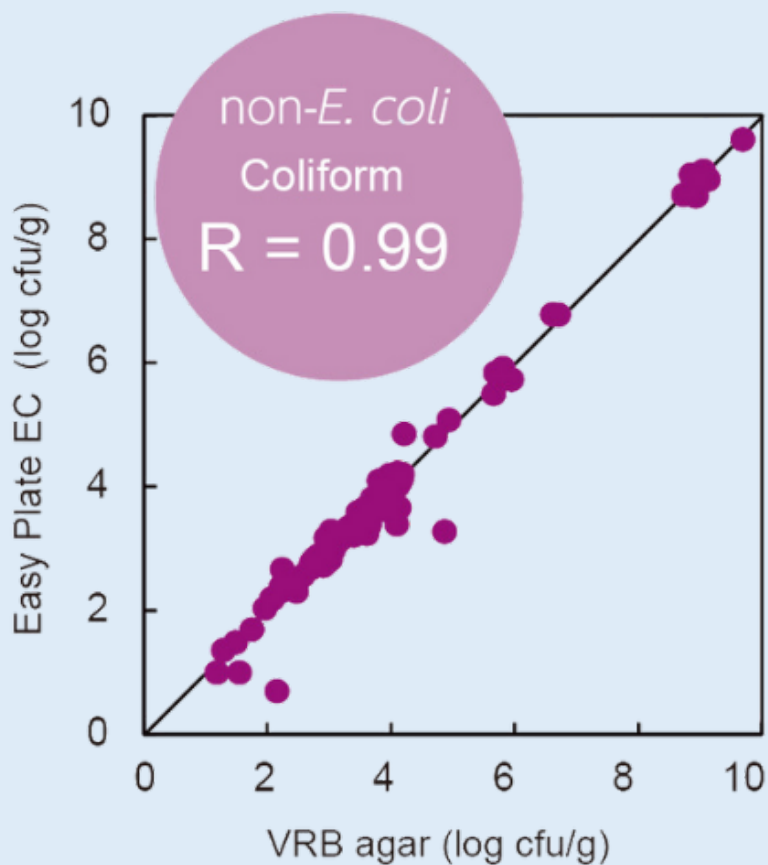
Klebsiella pneumoniae
(ATCC 13883)



Raw ground chicken



● ● Easy Plate EC

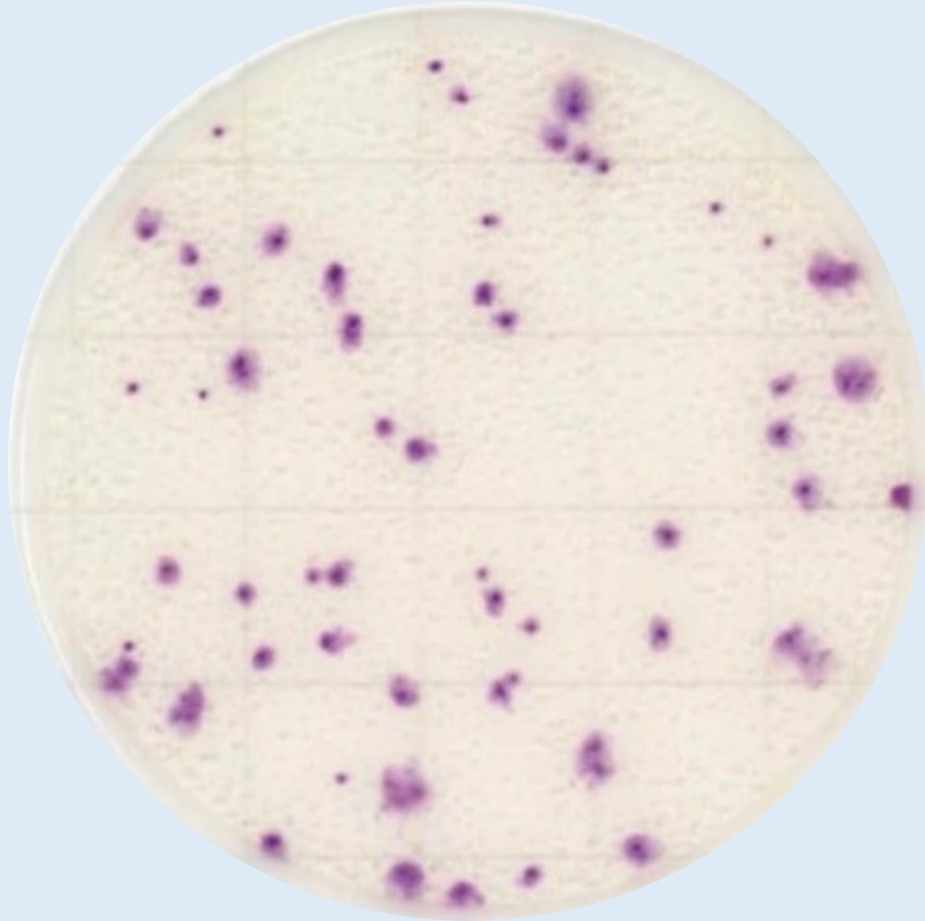


High correlation with the VRB agar and chromogenic in various foods.

*According to the research by DNP



● ● Easy Plate EC



E. Coli O157: H7 ATCC 43895
(Serotype O157H:7, verotoxin I- and II- producing strains)

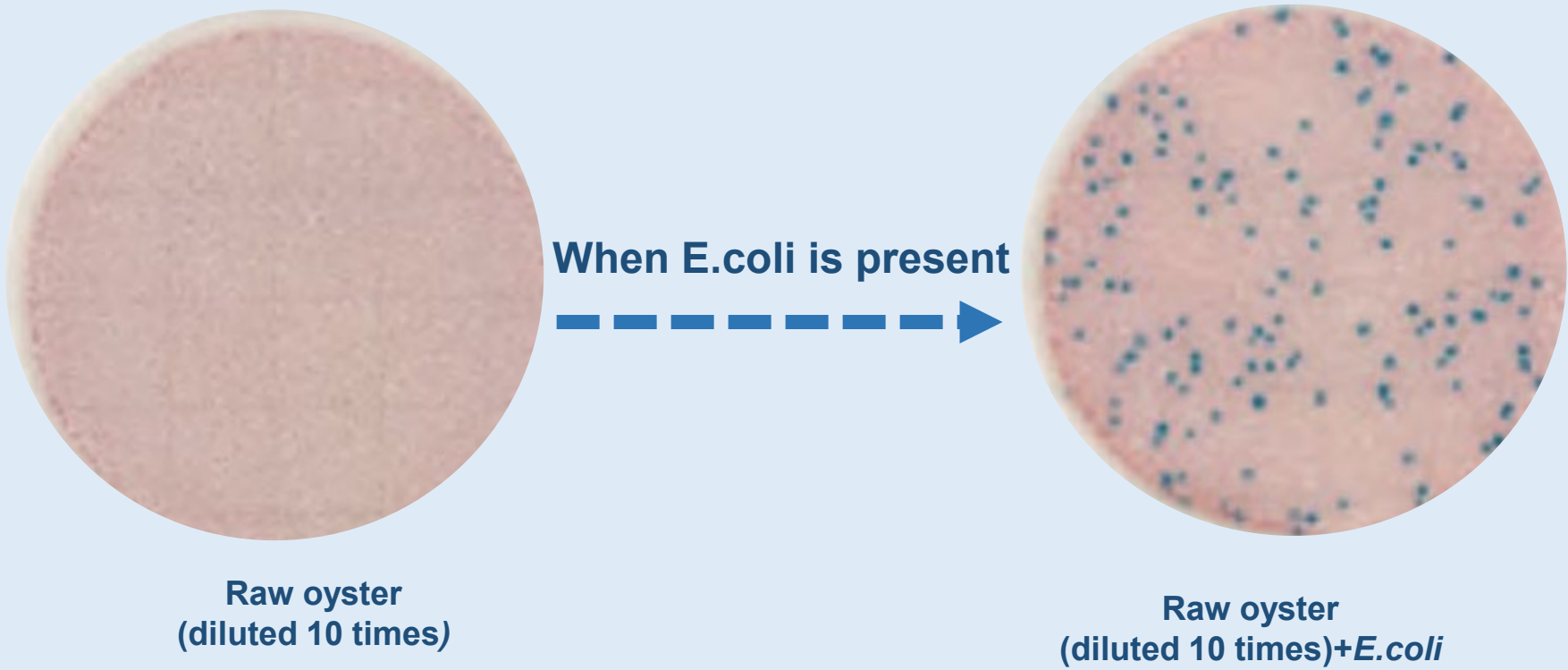
Most *E.coli* produce β -glucuronidase.

E. coli O157: H7 - Does not specifically produce β -glucuronidase, and it therefore exhibits a red-violet color similar to coliform.



● ● Easy Plate EC

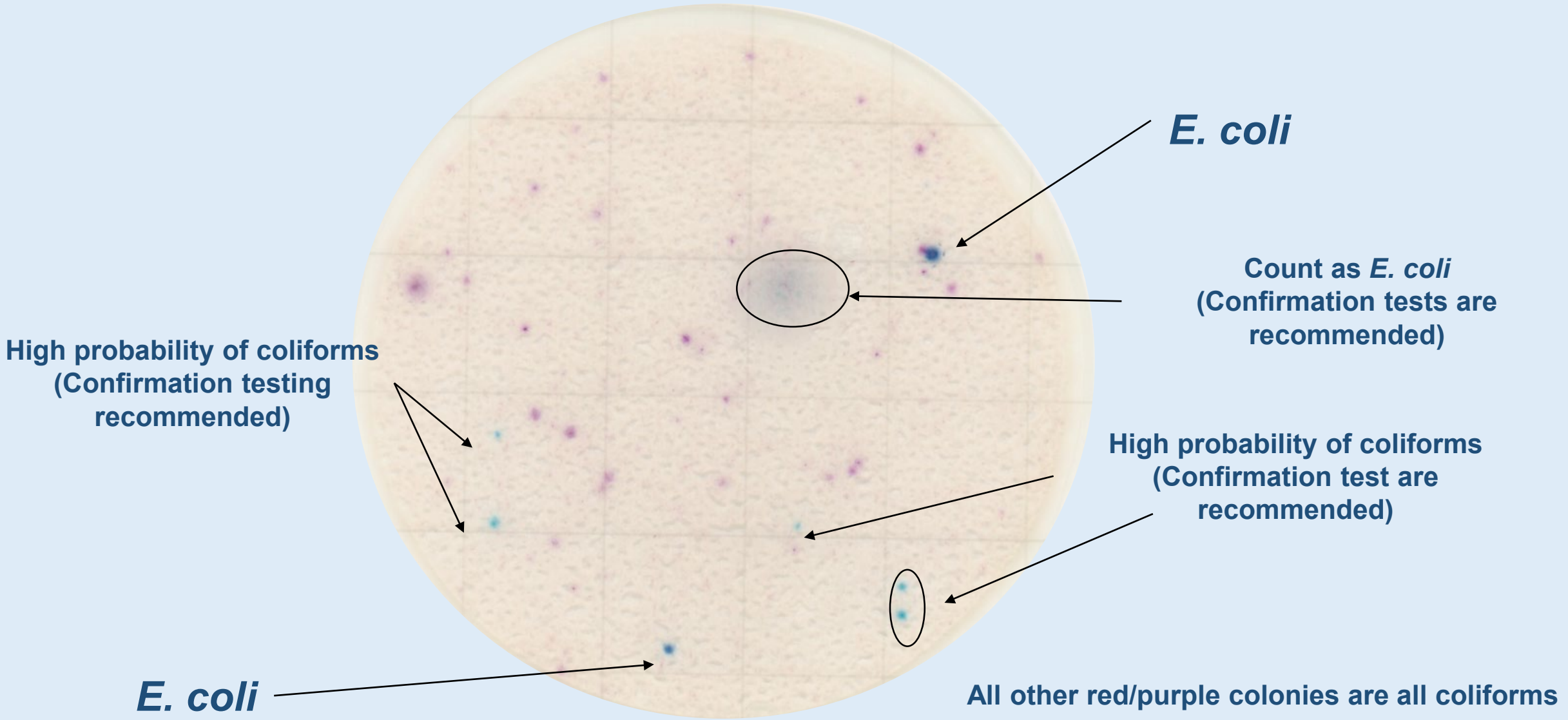
Coloring of the plate surface caused by enzymes contained in foods



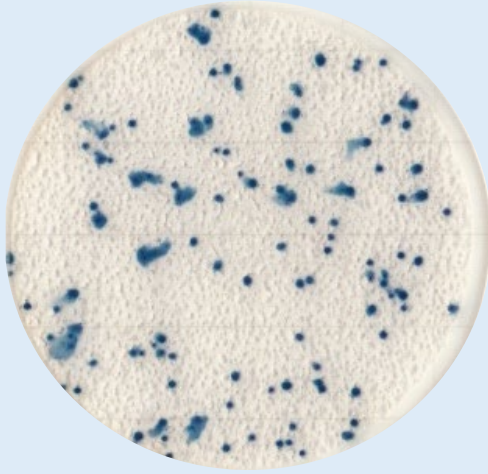
In some unheated foods and dairy products, residual enzymes in the food may cause blue coloring to develop over the entire medium. If the visibility is affected, dilution might help.



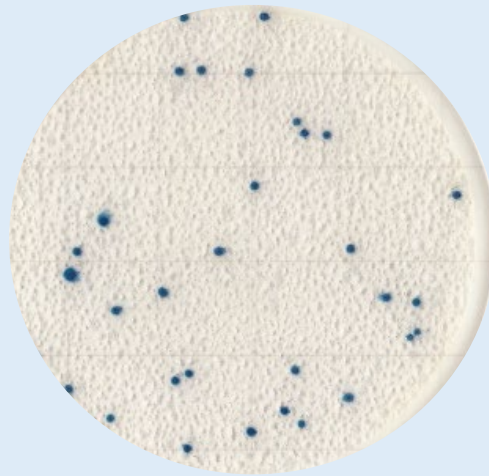
● ● Easy Plate EC



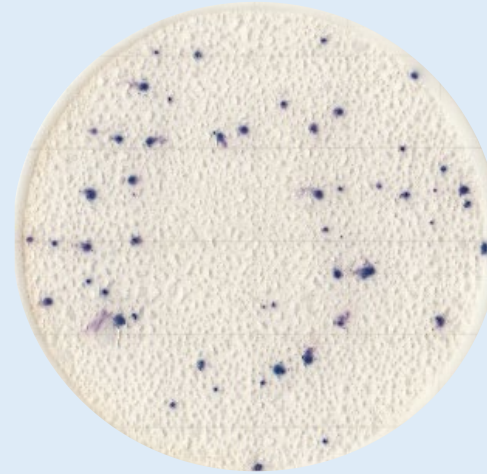
Easy Plate EC- *Escherichia coli* and *E.coli*



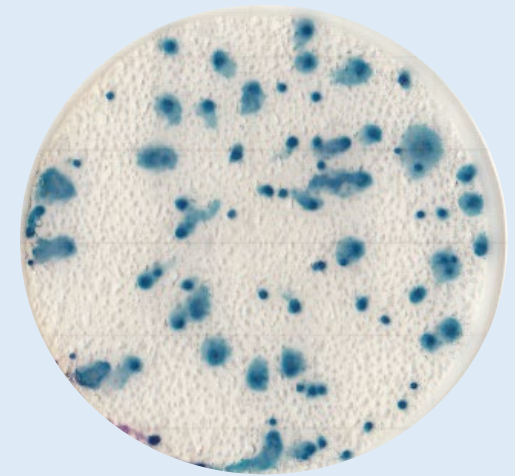
Escherichia coli
(NBRC 102203)



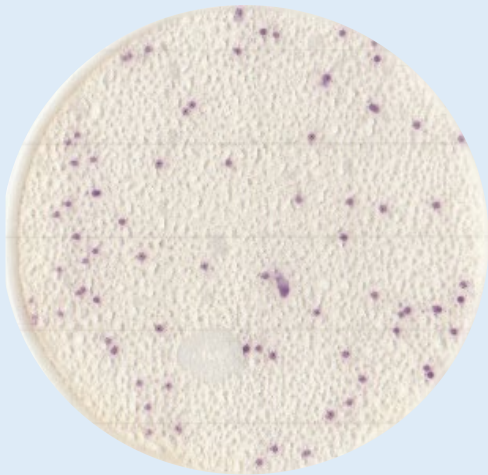
Escherichia coli
(NBRC 3806)



Escherichia coli
(NBRC 3543)



Escherichia coli
(D0099)



Klebsiella pneumoniae
(ATCC 13883)



Enterobacter cloacae
(ATCC 222)

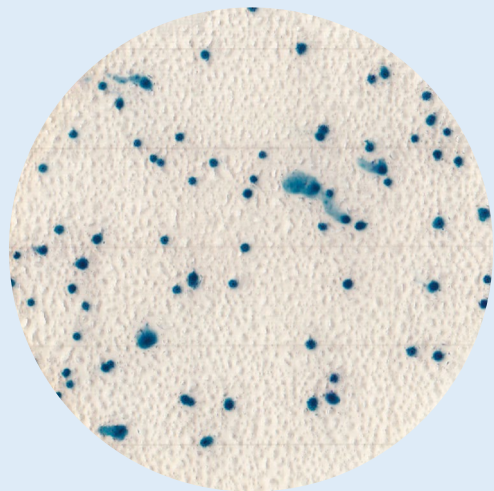


Escherichia hermanii
(NBRC 105704)

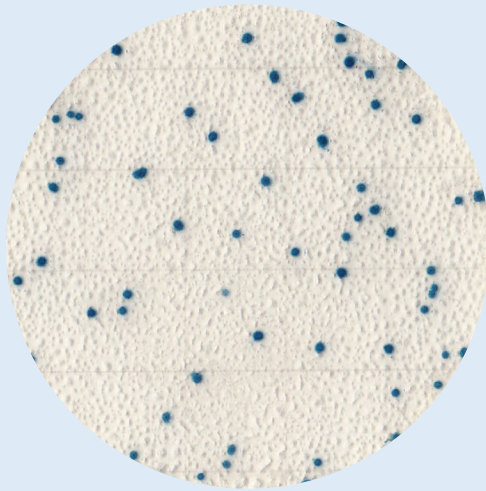


Citrobacter freundii
(ATCC 8090)

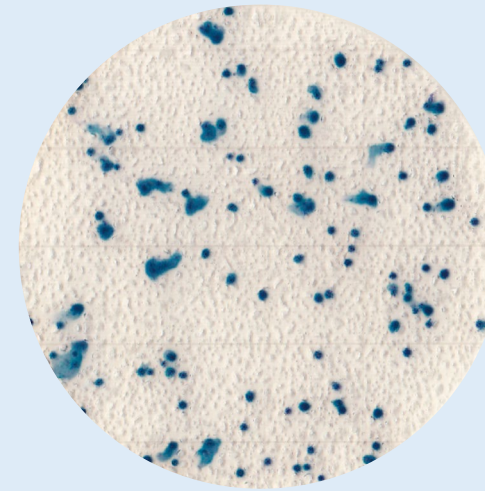
● ● Easy Plate EC- Strains



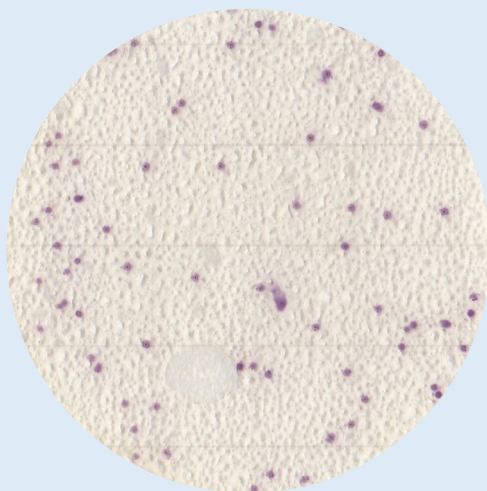
Escherichia coli
(NBRC 15034)



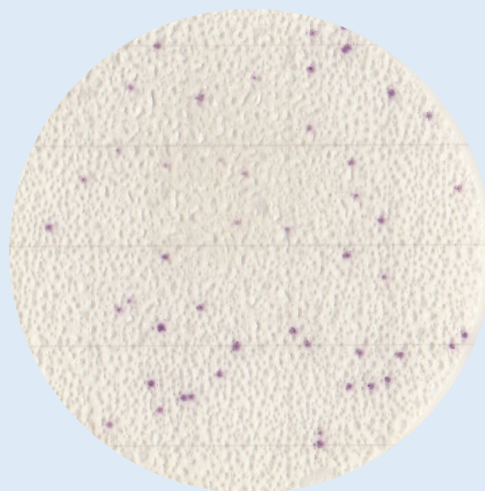
Escherichia coli
(NBRC 13500)



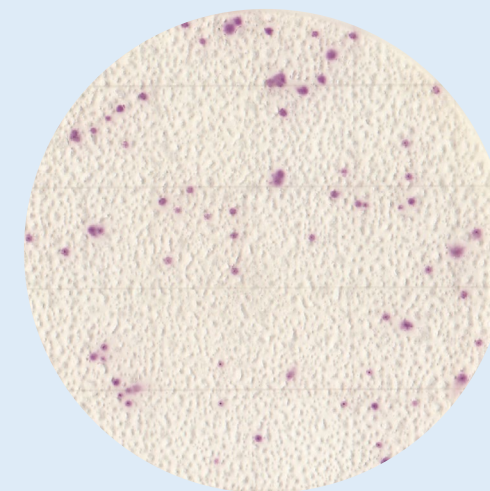
Escherichia coli
(NBRC 102203)



Klebsiella pneumoniae
(ATCC 13883)

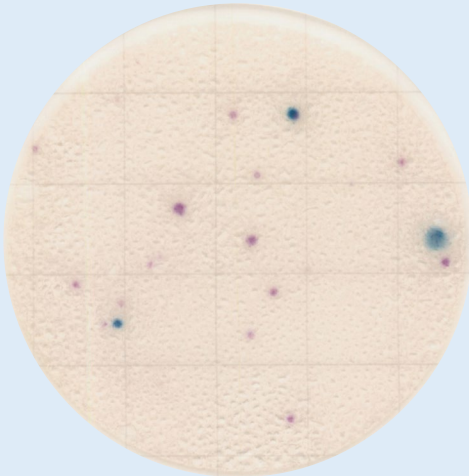


Enterobacter cloacae
(ATCC 222)

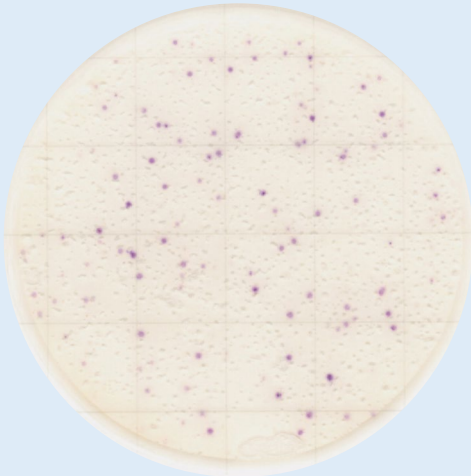


Citrobacter freundii
(NBRC 12681)

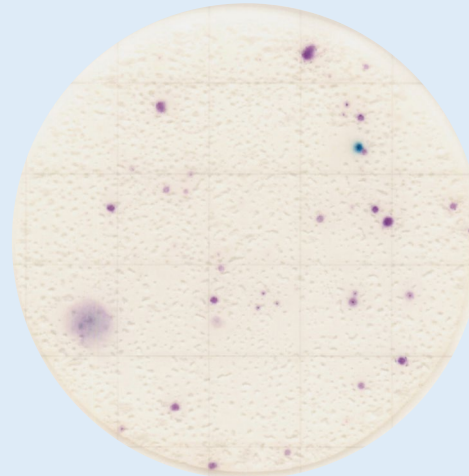
● ● Easy Plate EC- Strains



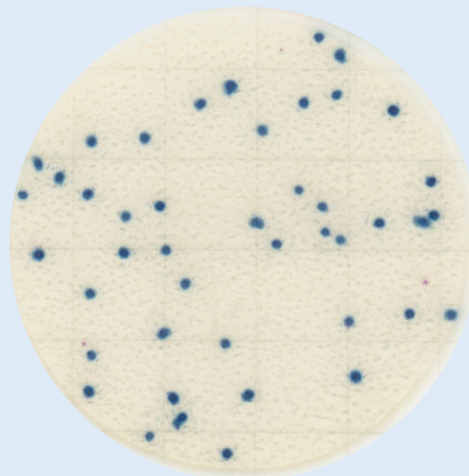
Raw ground chicken



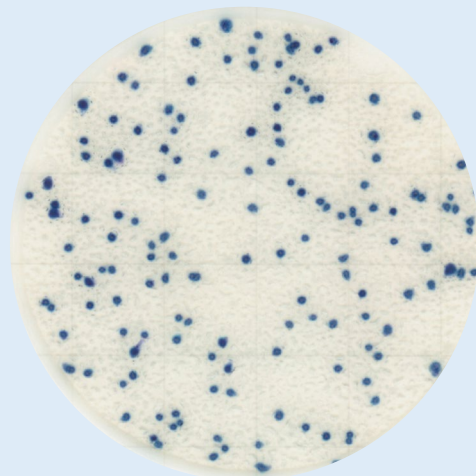
Raw salmon



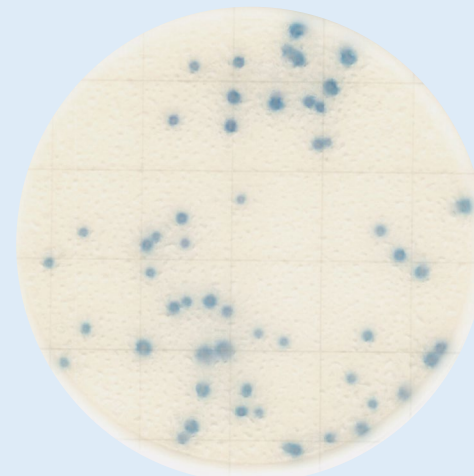
Raw shrimp



Roast beef + *E.coli*



Omelet + *E.coli*



Icecream + *E.coli*

● ● Easy Plate SA



Object microorganism

Staphylococcus aureus

Incubation time

24 ± 1 hours

Incubation temperature

35 or 37 ± 1°C

Storage condition

2 – 8°C

Shelf life

12 months

Certification

AOAC RI PTM

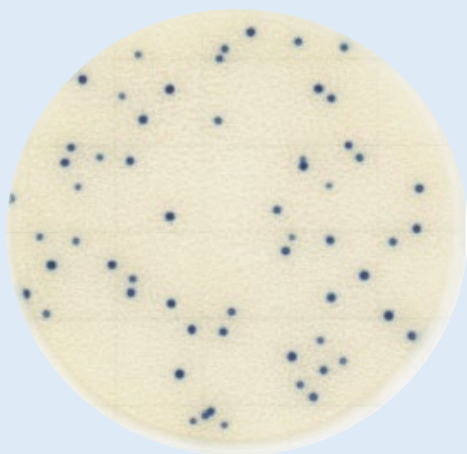
MicroVal



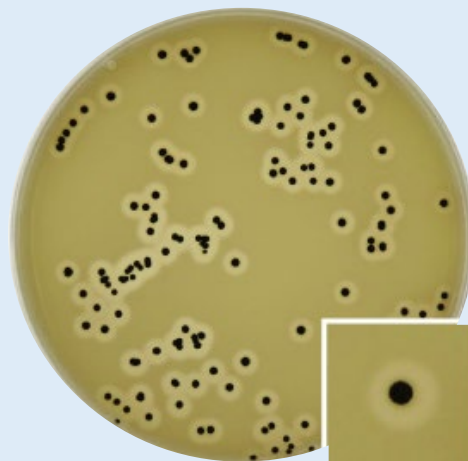
● ● Easy Plate SA

No need to check for yolk reaction such as clear zone, cloudy ring, etc.

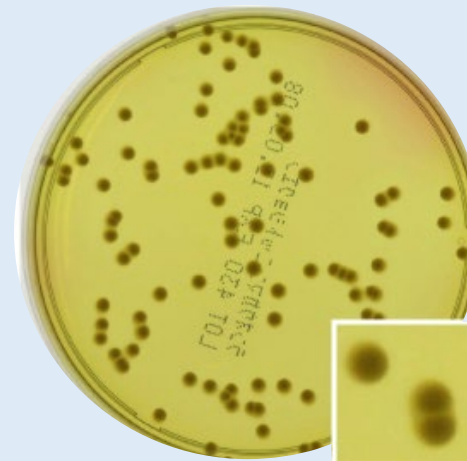
S.Aureus
ATCC 25923



Easy Plate SA



Egg yolk mannitol
salt agar medium



Baird-Parker
agar medium

Determination
method

Blue colony

Black colony+Egg yolk
reaction-clear zone

Black colony+Egg yolk
reaction-clear zone

Incubation
period

24 hour

48 hour

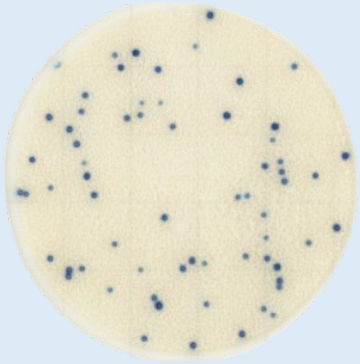
Instillation
amount

1mL

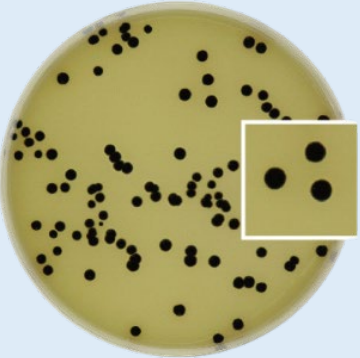
0.1mL (General smear method)

● ● Easy Plate SA

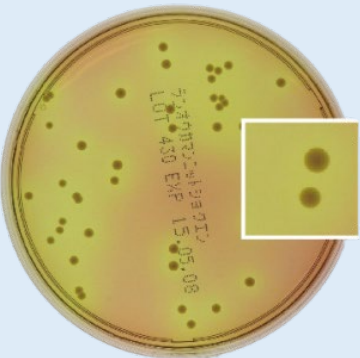
S. aureus ATCC13565



Easy Plate SA
Positive



BP agar
Egg-yolk reaction
Negative



MSEY agar
Egg-yolk reaction
Negative

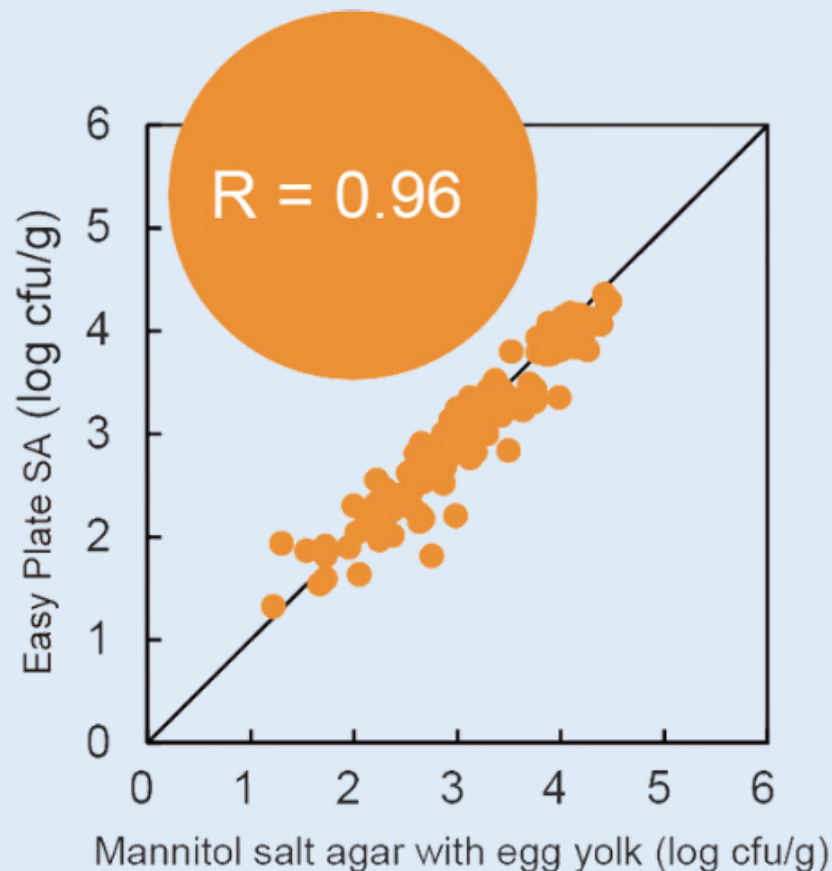
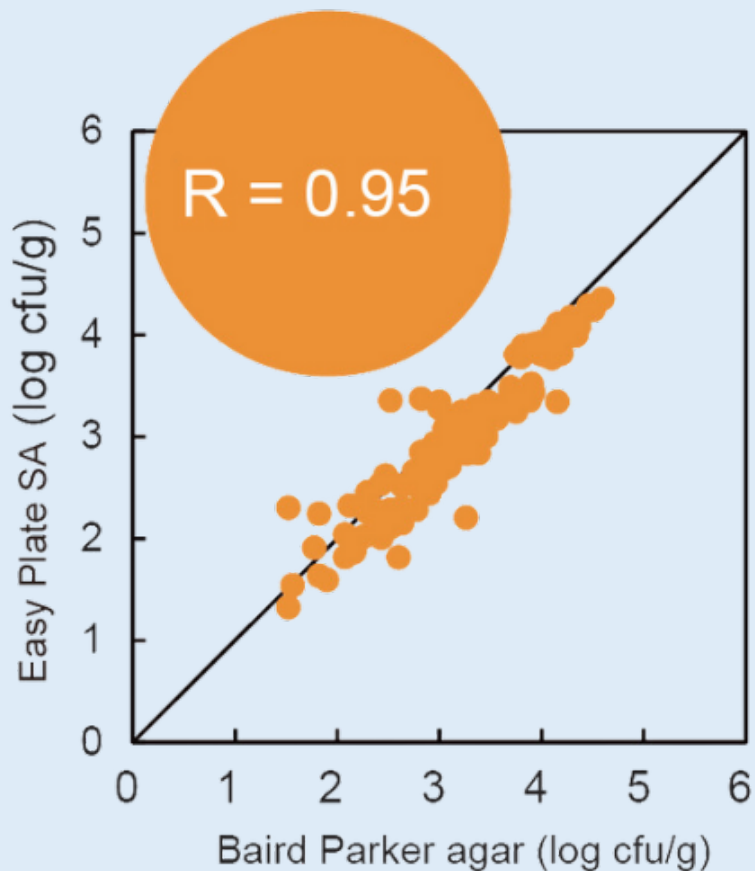
Some S. aureus that exhibit negative egg yolk reactions on conventional agar media can be detected on Easy Plate.

Many bacteria other than S. aureus are inhibited by the selective media.

Non-Staph aureus colonies that do develop, are easy to identify due to their pink to red-violet coloring.



● ● Easy Plate SA

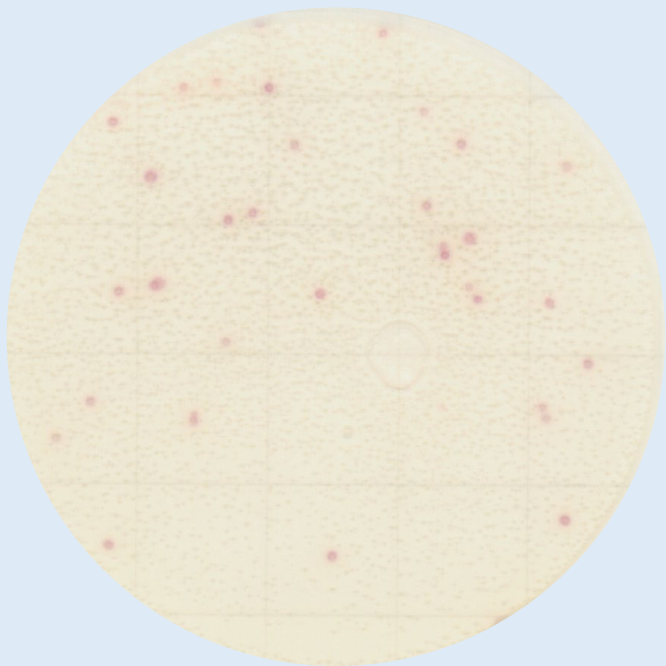


High correlation with the baird parker agar and mannitol salt agar with egg yolk in various foods.

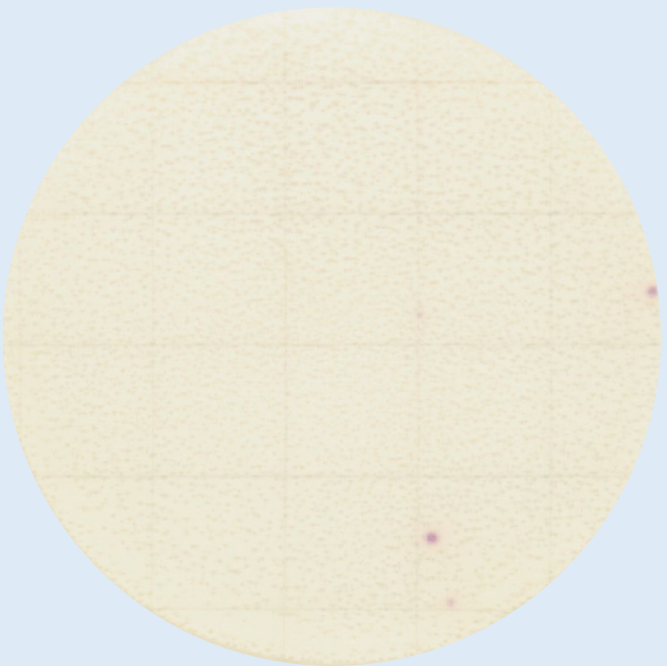


● ● Easy Plate SA

Inhibitory for other bacteria but, if they develop, pink to red-violet coloring making identifying easy.



Bacillus licheniformis
(NBRC 12200)



Bacillus cereus
(D0068)

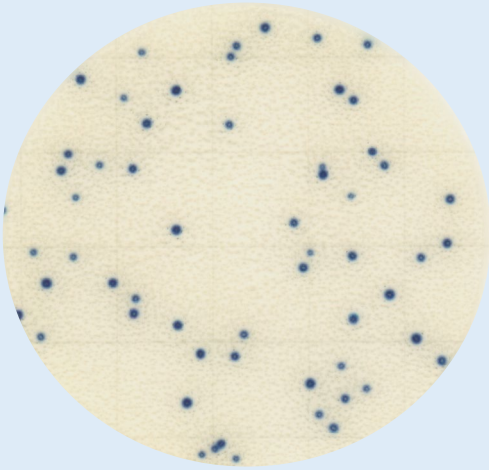


Bacillus cereus
(NBRC 13494)

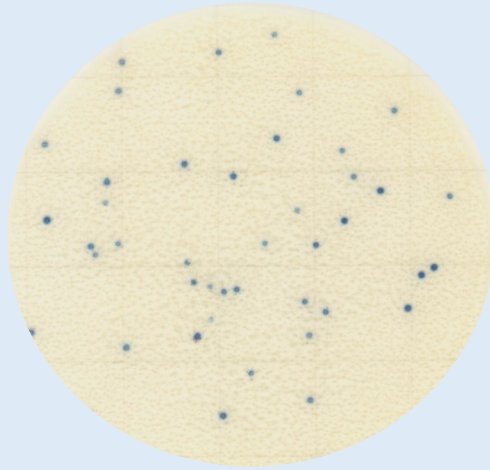


Easy Plate SA- Strains and food

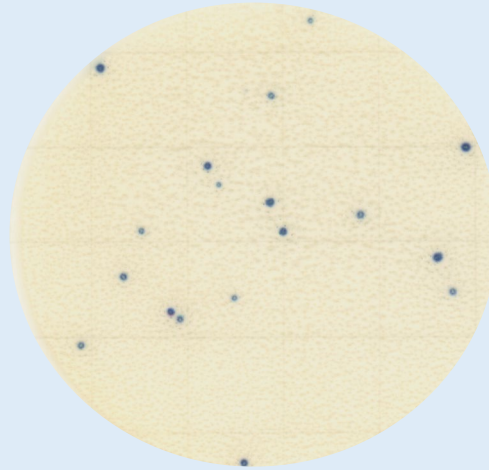
Strains



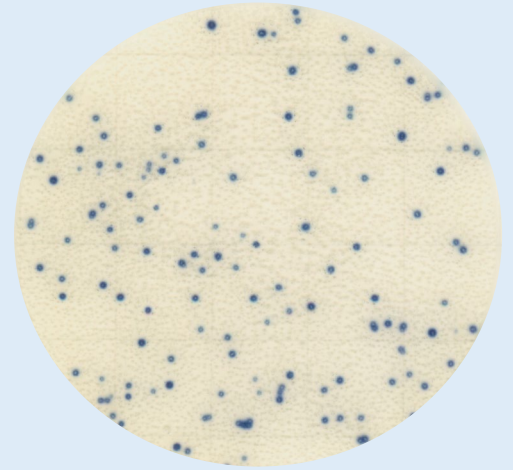
Staphylococcus aureus
(ATCC 25923)



Staphylococcus aureus
(NBRC 13276)

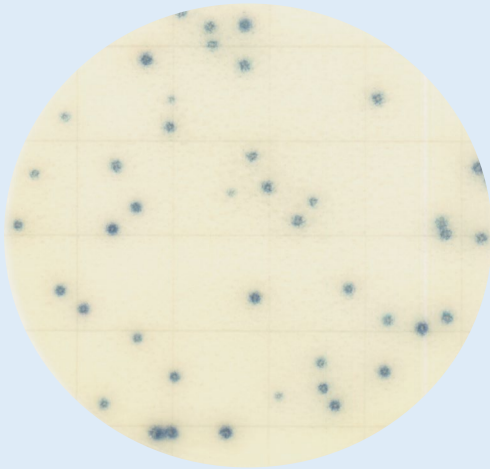


Staphylococcus aureus
(NBRC 100910)

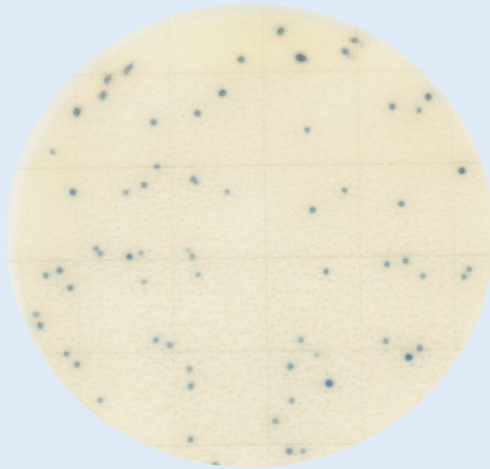


Staphylococcus aureus
(D0152)

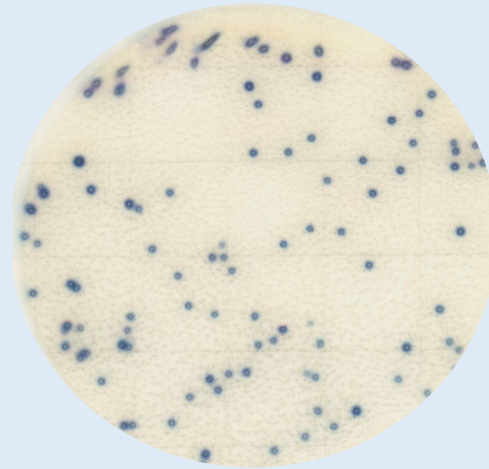
Food



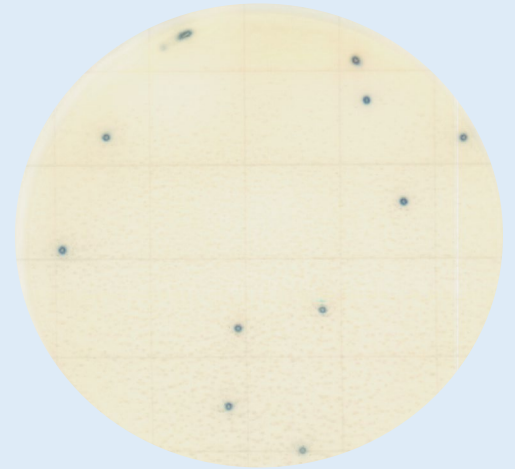
Pasteurized milk +
S.aureus



Cream puff + *S.aureus*



Cooked ham +
S.aureus



Egg sandwich +
S. aureus

● ● Easy Plate YM-R

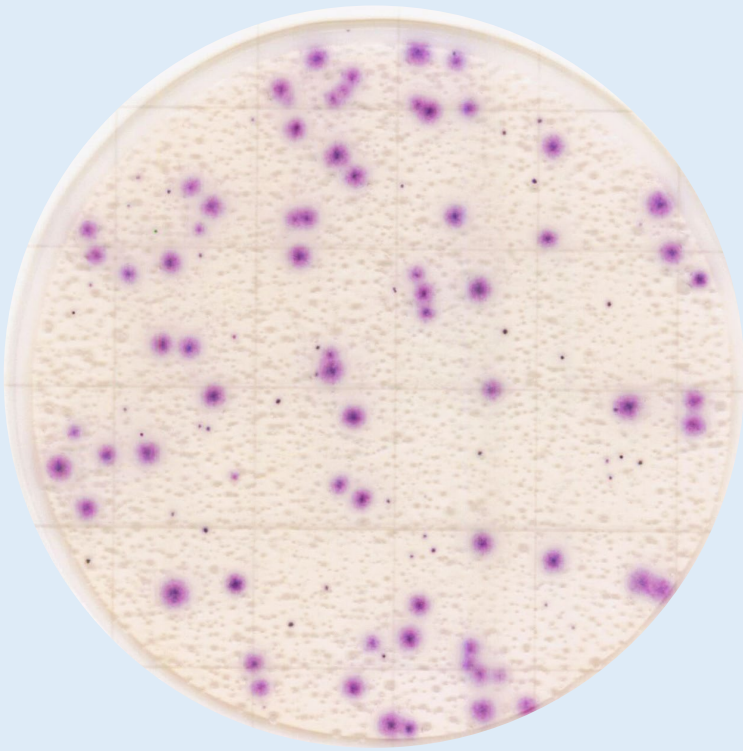


Object microorganism	Yeast and Mold
Incubation time	48 ± 2 hours
Incubation temperature	25 ± 1°C
Storage condition	2 – 8°C
Shelf life	18 months
Certification	AOAC RI PTM (In progress)



● ● Easy Plate YM-R

Easily distinguishable brightly colored colonies at 48 hours!



Easy Plate YM-R
48 hours

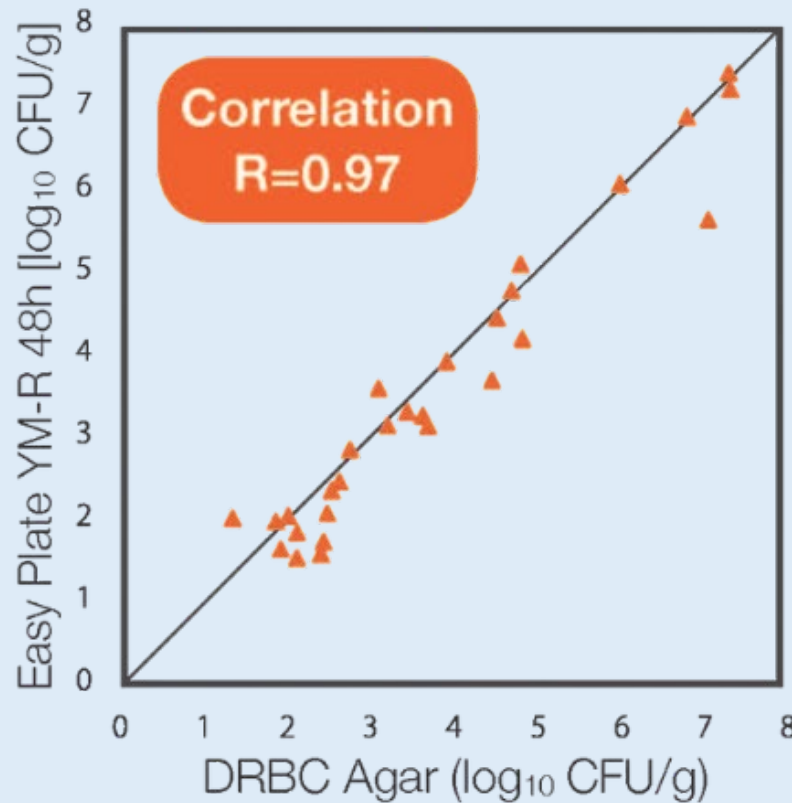
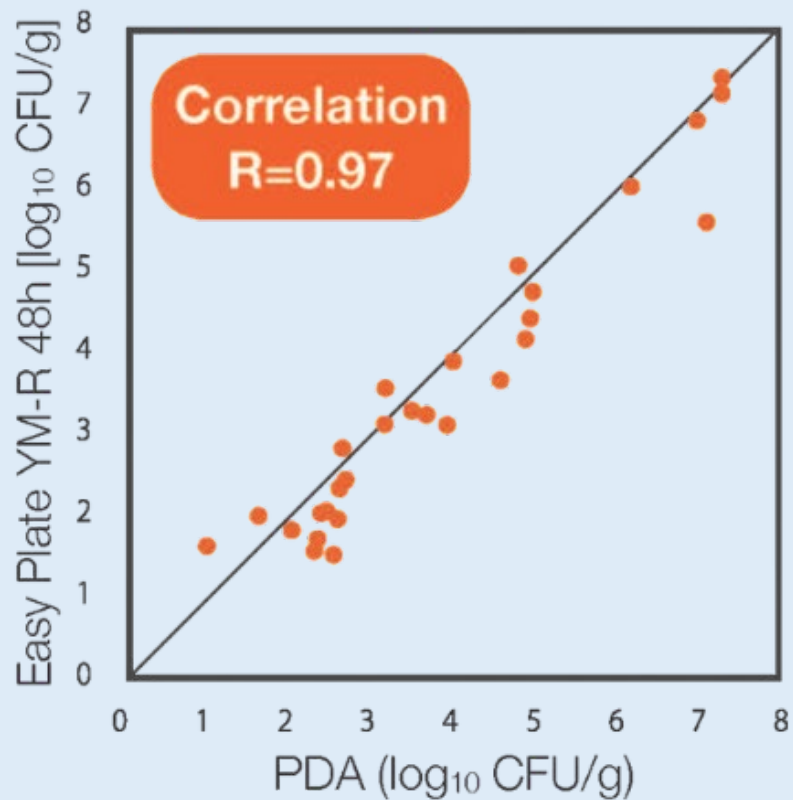


PDA medium
120 hours

Molded salami



● ● Easy Plate YM-R



High correlation with the PDA and DRBC agar in various foods.

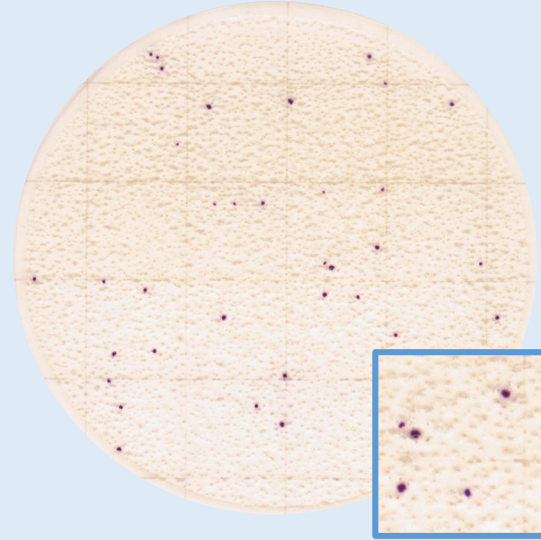
*Data is provided by Center for Fungal Consultation, incorporated nonprofit organization



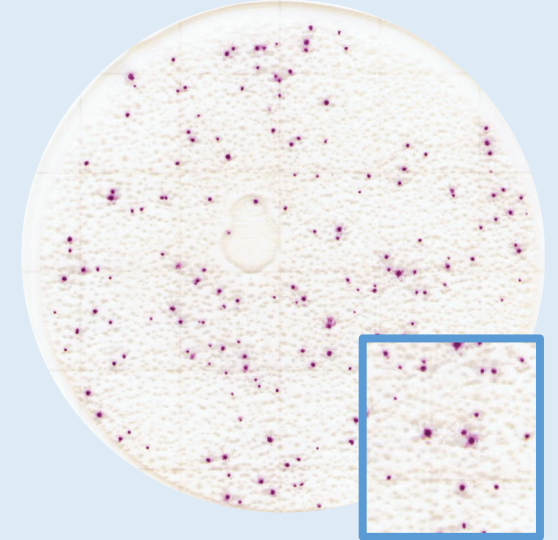
● ● Easy Plate YM-R

Yeast: Colonies with small circle and defined edges.

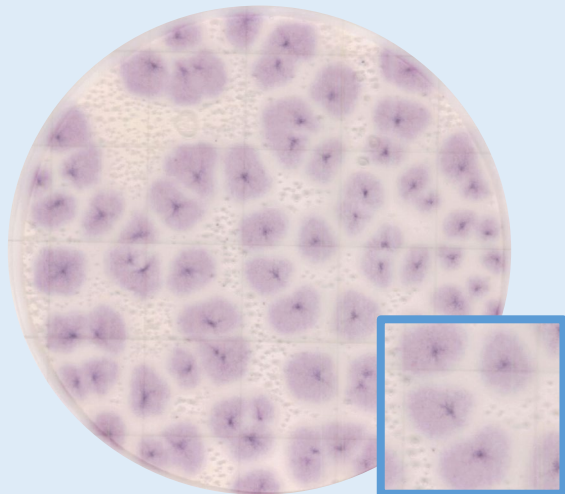
Dressing+
Wickerhamomyces anomalus



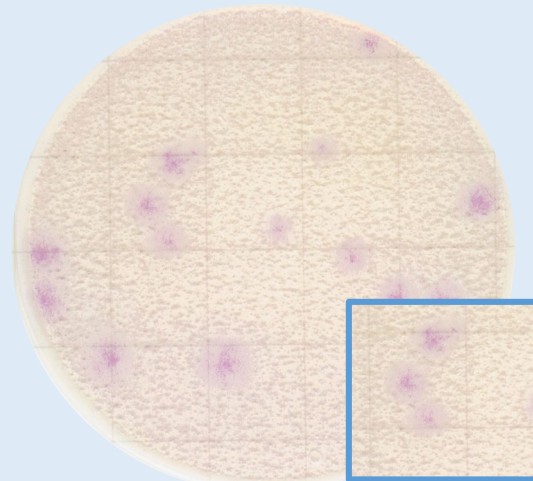
Zygosaccharomyces
Rouxii



Geotrichum candidum



Egg powder+
Aspergillus niger

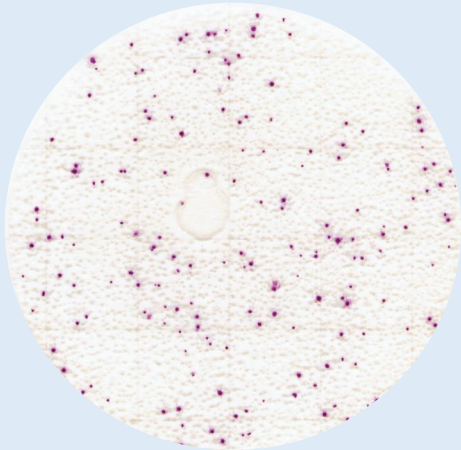


Mold: Colonies spread widely and form purple colonies with diffuse edges.

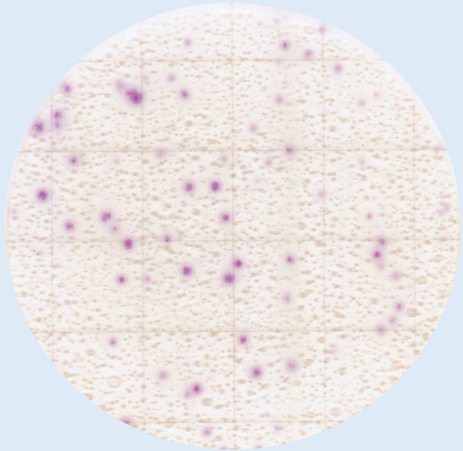


● ● Easy Plate YM-R - Strains

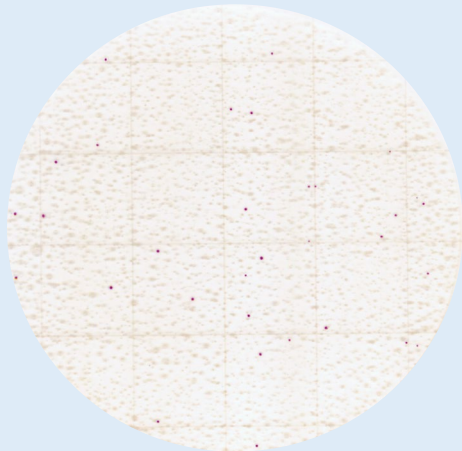
25°C, 48 hours



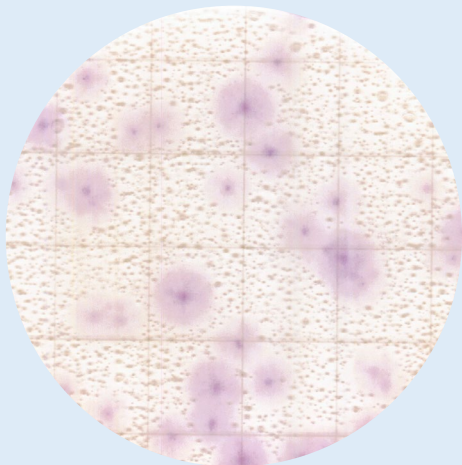
Zygosaccharomyces rouxii



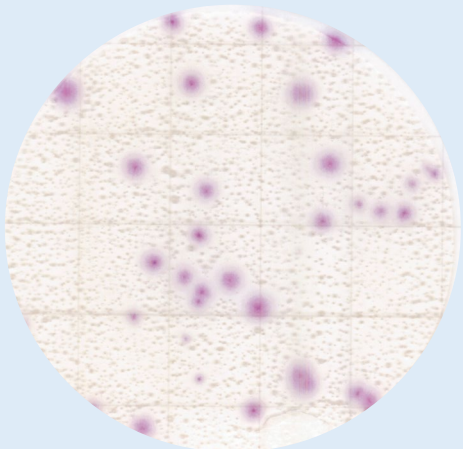
Penicillium glabrum



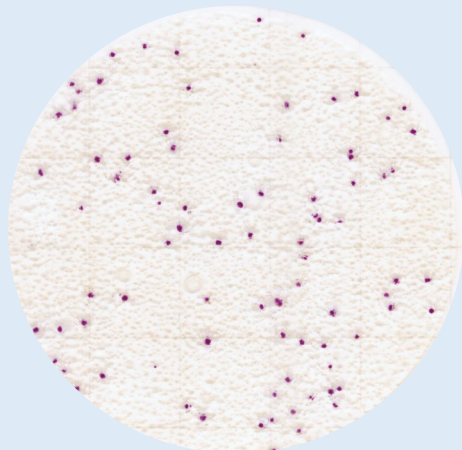
Candida parapsilosis



Aspergillus flavus



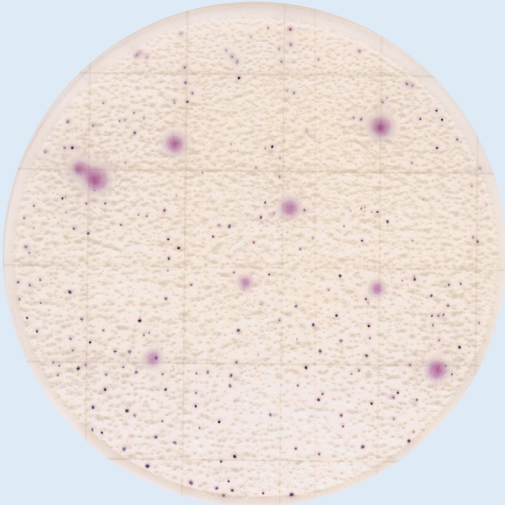
Auerobasidium pullalans



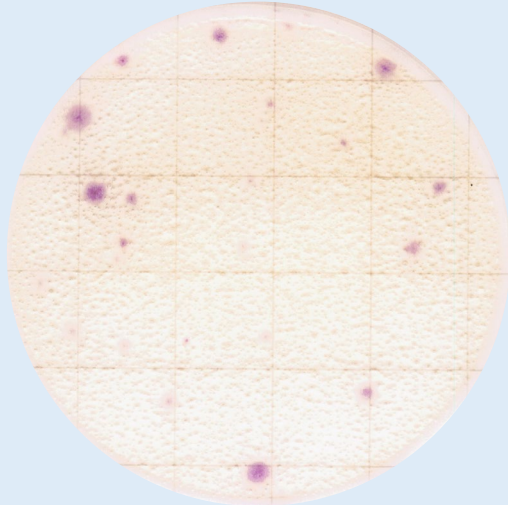
Saccharomyces cerevisiae

● ● Easy Plate YM-R - Strains

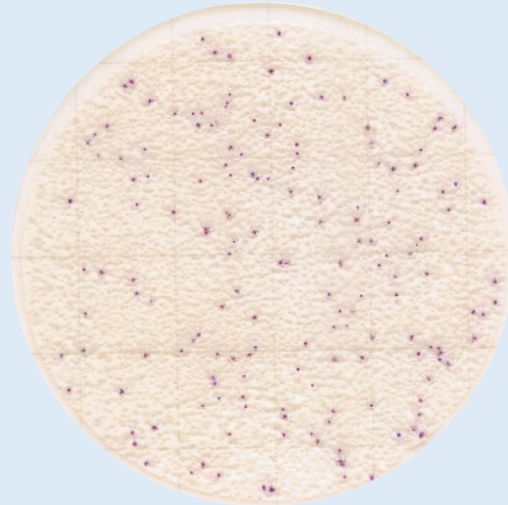
25°C, 48 hours



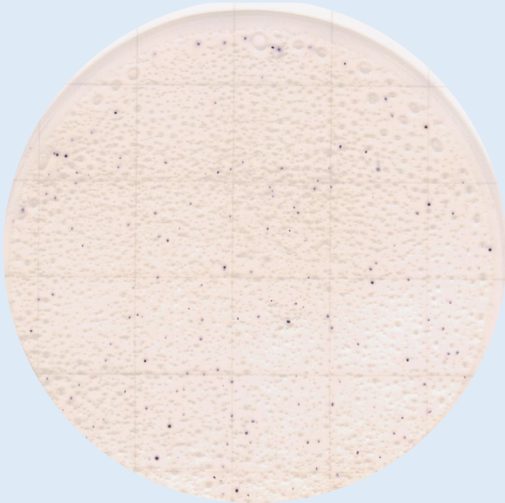
Ham



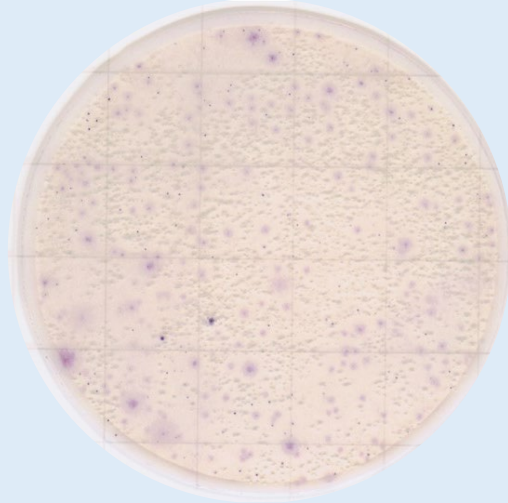
Pancake mix



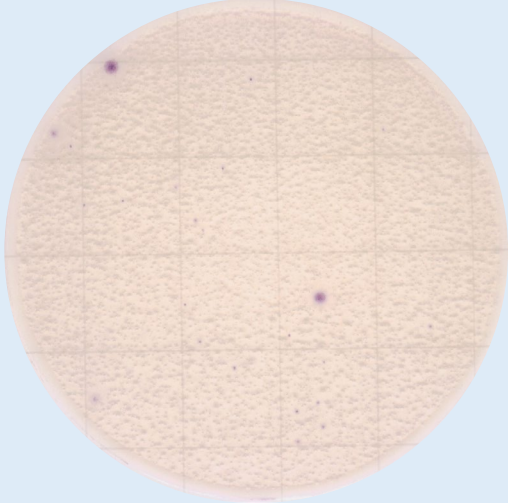
Sweets



Sandwich



Fruit tart



Tuna

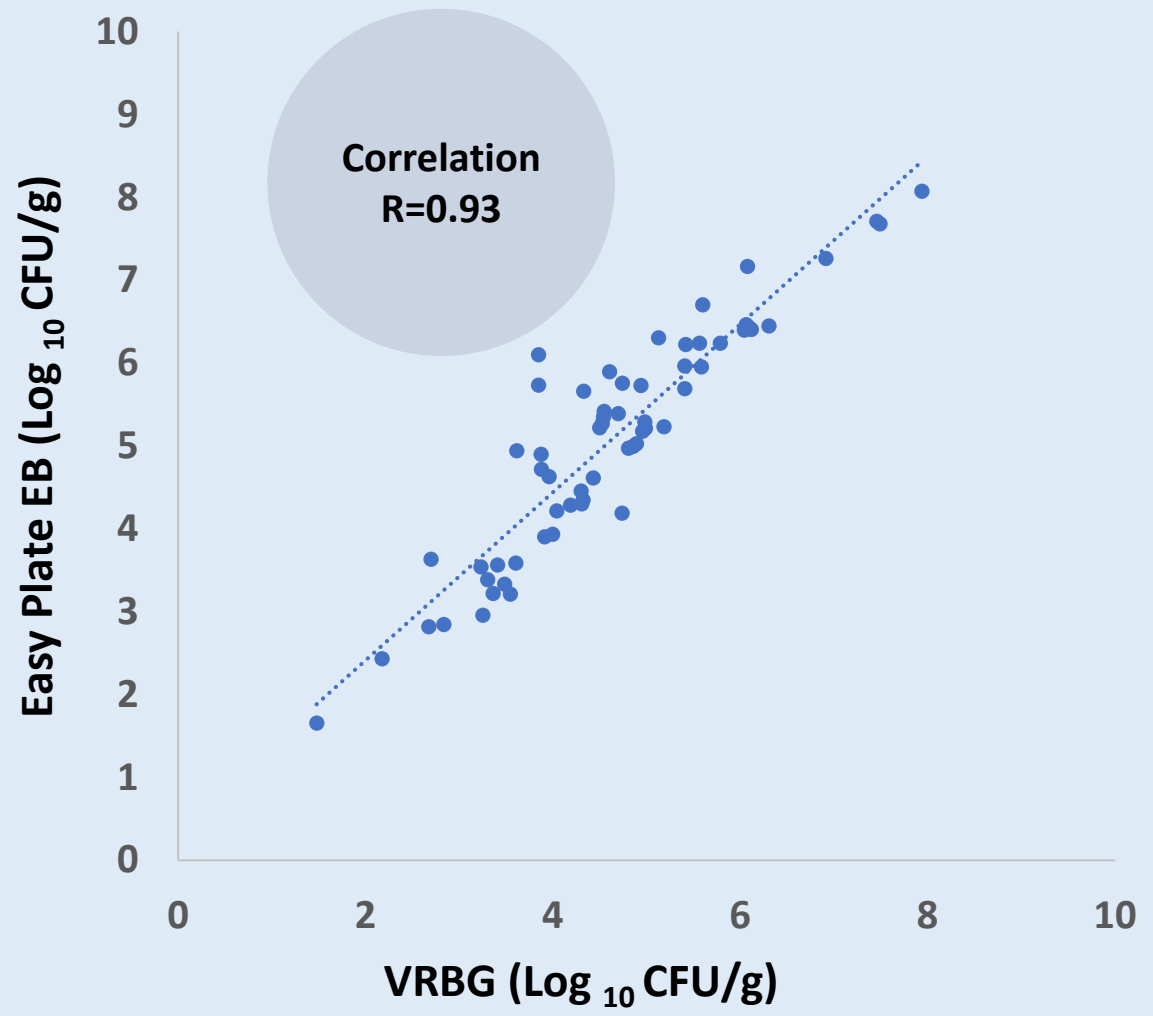
● ● Easy Plate EB



Object microorganism	<i>Enterobacteriaceae</i>
Incubation time	24 ± 1 hours
Incubation temperature	35 ± 1°C or 37 ± 1°C
Storage condition	2 – 8°C
Shelf life	12 months
Certification	AOAC RI PTM (In progress)



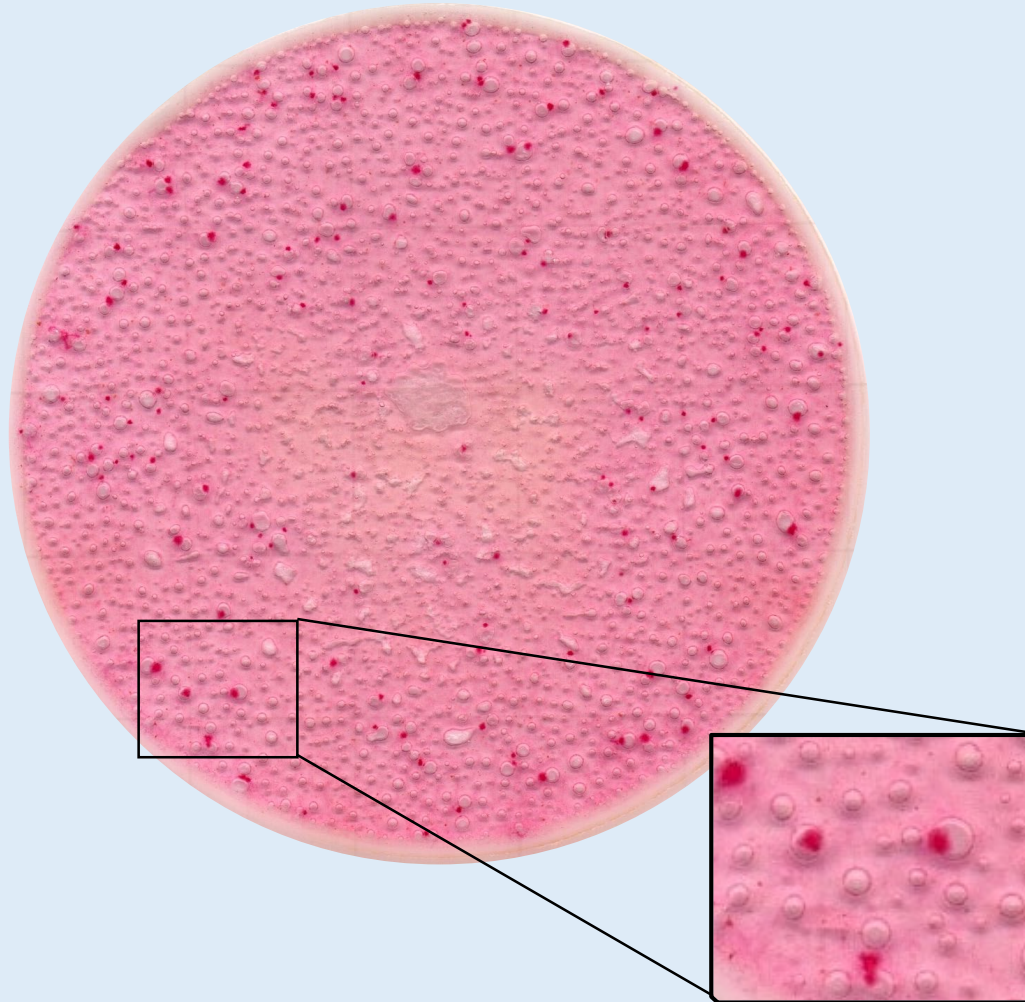
● ● Easy Plate EB



High correlation with the VRBG agar in various foods.



● ● Easy Plate EB



Interpretation

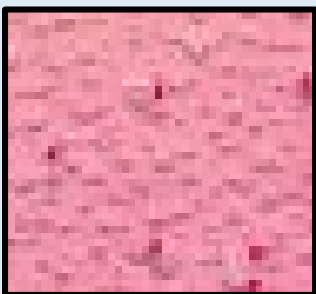
Count all red colonies regardless of size or intensity.

**Does not need to count bubble patterns associated with gas producing colonies.*

Salmonella enterica subsp. *enterica*
(NBRC 13245)



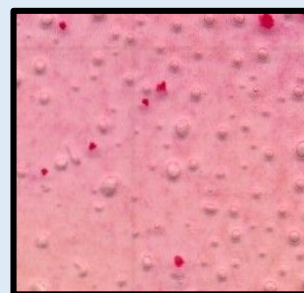
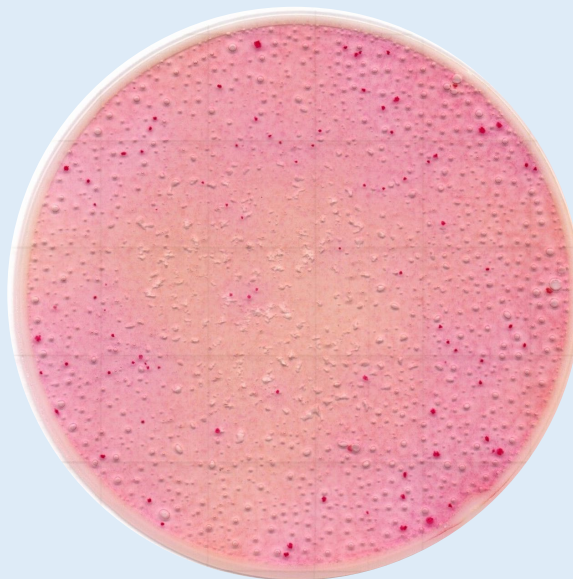
● ● Easy Plate EB



Klebsiella pneumoniae
(NBRC 14940)



Escherichia coli
(NBRC 15034)



Freeze pork



Beef brisket skirt



Colony Counting System for Easy Plate

Easy Plate Series

(AC, CC, EC, SA, YM-R)



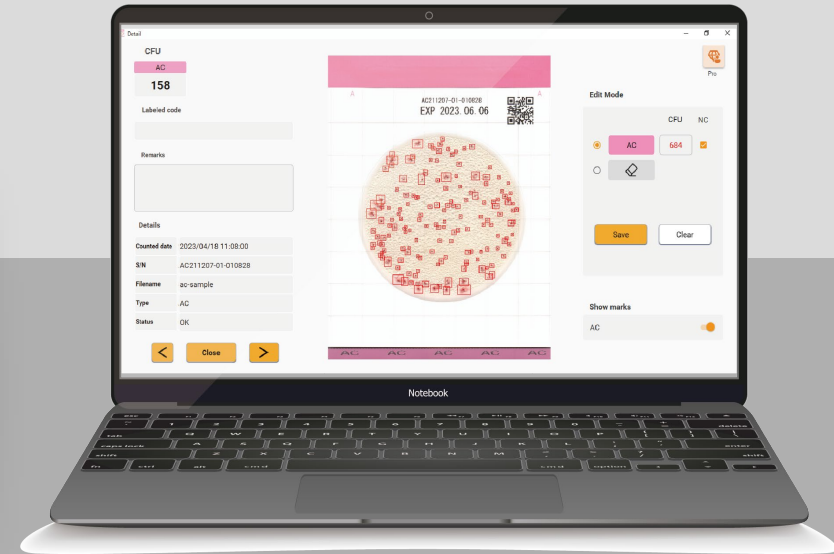
ADS-4300N

(Brother Industries, Ltd.)



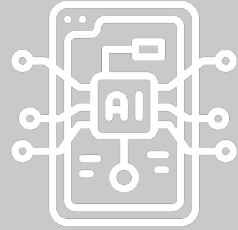
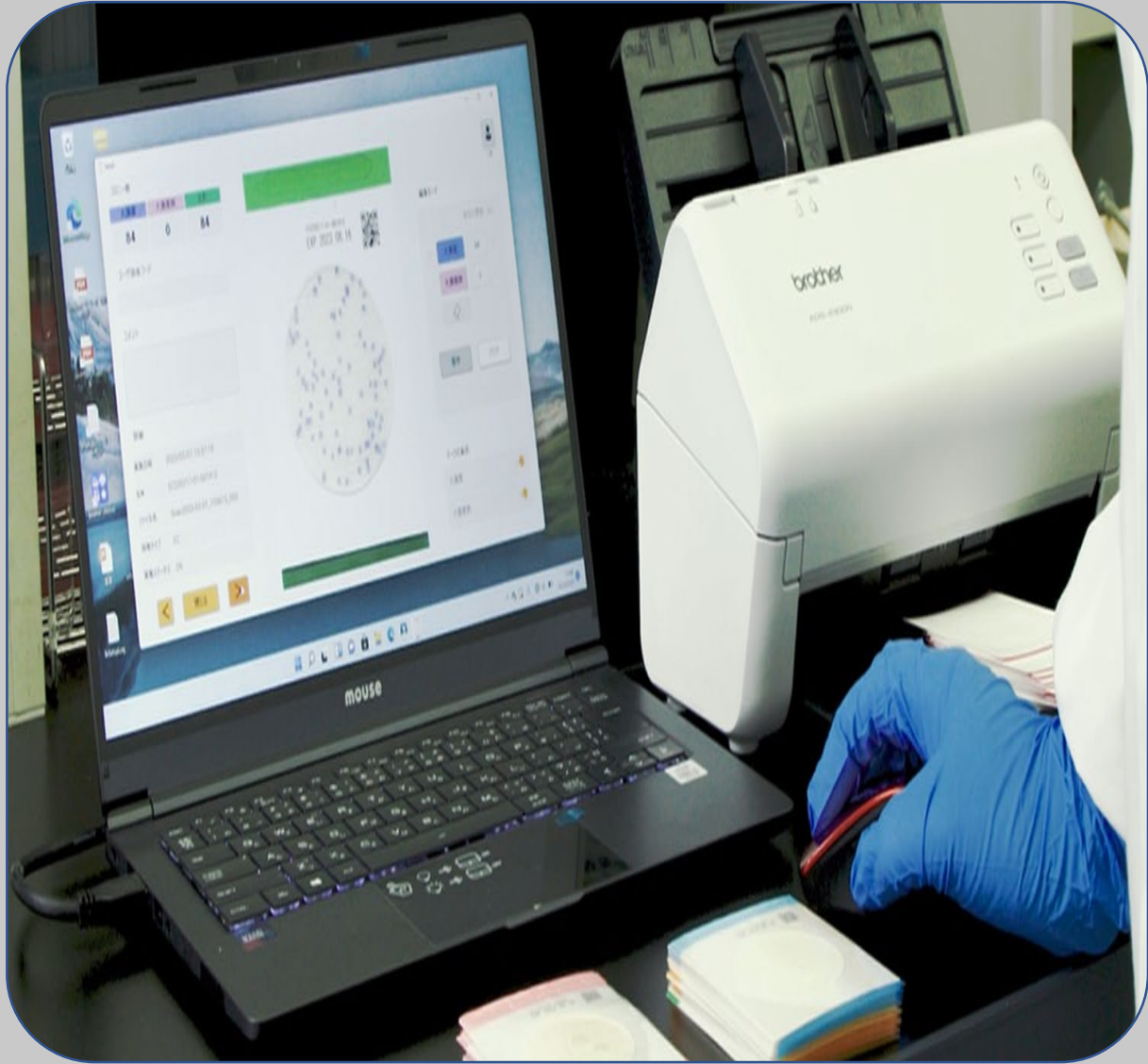
Colony Counting System

(Provided for free from Kikkoman Biochemifa Company)



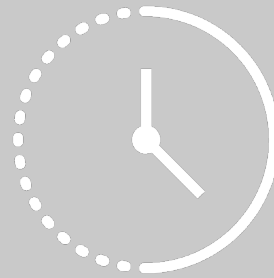


**Accurate colony
counting without
the high initial cost**



Accurate

High accuracy using AI technologies



Time Saving

Automatically counts and analyze the colonies



Easy to Use

No initial setup required

● ● PROCEDURES



Samples



Scan



Count

Step 1. Scan the Easy Plate with the scanner ADS-4300N

Step 2. Analyze using Colony Counting System

● ● ADVANTAGES

- Software is provided for free from Kikkoman Biochemifa Company
 - High-accurate colony counting by AI technologies
 - No parameter settings required for colony detection
 - Simple and easy-to-use
 - Continuous scan with the affordable scanner
-