CompactDry™ TCR Interpretation Guide



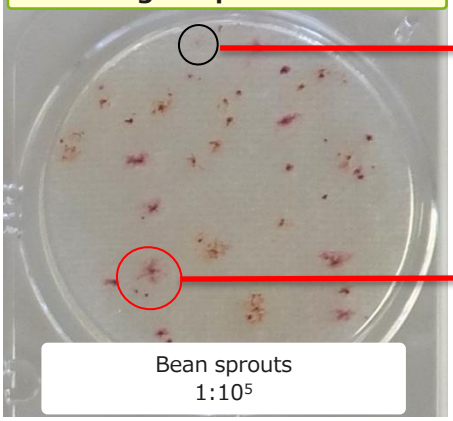
Actual size

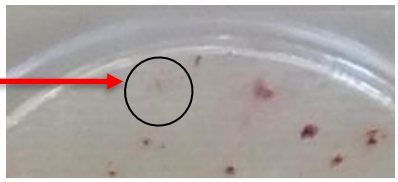
CompactDry™ TCR
TCR : Total Viable Count, Rapid type
Certification : AOAC-PTM

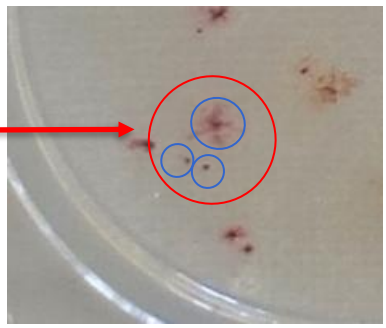
[Features]
- Rapid enumeration of total viable counts in 24 hours
- High correlation with the conventional culture method using Standard Methods Agar (SMA)
- Easy detection and enumeration through colony coloration
- Improves laboratory efficiency with a ready-to-use medium that can be stored at room temperature

[Interpretation]
Count all colonies (most appear red).
Incubation temperature: 35 ± 1°C (all foods except dairy products)
35 ± 1°C or 32 ± 1°C (dairy products)
Incubation time: 24 ± 2 hours (rapid method)
48 ± 3 hours (method aligned with conventional methods)

Counting of spread colonies


Bean sprouts
$1:10^5$

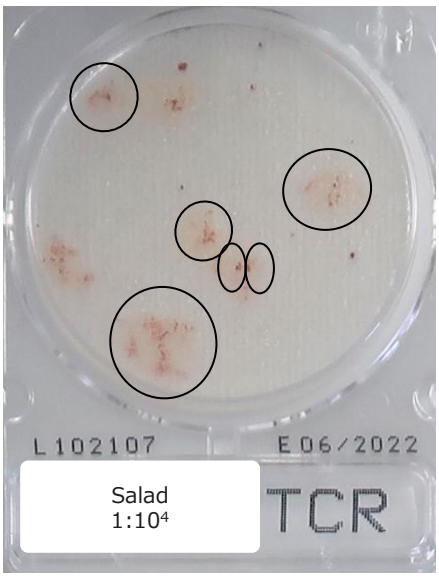




*The interpretation method is basically the same as that for Compact Dry TC.

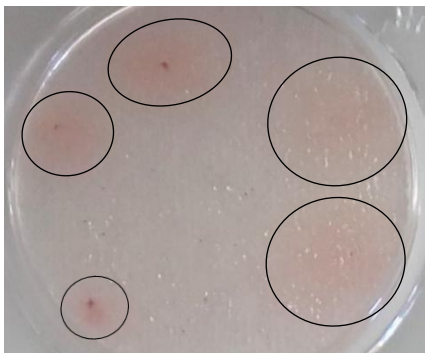
Q1. Should the colonies inside the black circle be counted?
A1. Please count colonies even if the red coloration is faint.

Q2. How many colonies should be counted inside the red circle?
A2. Even if coloration spreads around the red center, count it as one colony. The total number of colonies inside the red circle should be counted as three, as circled in blue.



Salad
$1:10^4$

Q. The red coloration has spread. How should it be counted?
A. Highly motile microorganisms may produce colonies that spread on the plate. Such spread growth should be counted as a single colony.



Key Point!
When a sample suspension is inoculated onto CompactDry, it spreads uniformly over the entire sheet. As a result, microorganisms present in the sample are also distributed evenly, and colonies should develop across the sheet rather than in only one area. Therefore, results should be interpreted by observing the entire sheet. For samples known to contain highly spreading microorganisms, it may be useful to prepare additional serial dilutions or to examine the plate after 24 hours of incubation and mark colony positions on the back of the plate for reference.

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When the Entire Sheet Turns Red / Appropriate Dilution Level









The ground beef sample was inoculated with serially diluted sample suspensions ranging from 1:10 to 1:10000. At the 1:10000 dilution, 43 colonies were counted. Based on the dilution factors, the estimated colony counts were approximately 43000 at the 1:10 dilution, 4300 at the 1:100 dilution, and 430 at the 1:1000 dilution. With CompactDry, colony counting becomes difficult when the number of colonies exceeds approximately 1000 per plate. When the count exceeds 10000, individual colonies can no longer be distinguished, and the entire sheet appears reddish. For accurate enumeration, samples should be diluted appropriately to obtain 300 colonies or fewer per plate.

Key point
If the stain is discolored due to an excessive number of microorganisms but the redness is weak, or if you're unsure whether highly motile have spread throughout the sheet and are causing the growth, try slightly opening the lid and smelling it. If microorganisms are growing, there will be a distinctive odor, so observe this information as well.

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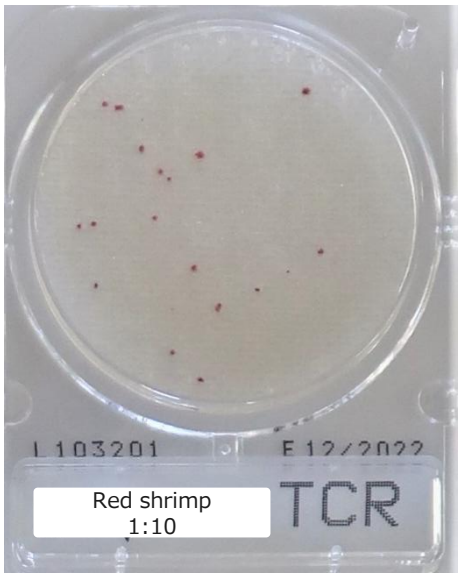
Colony morphology in various samples



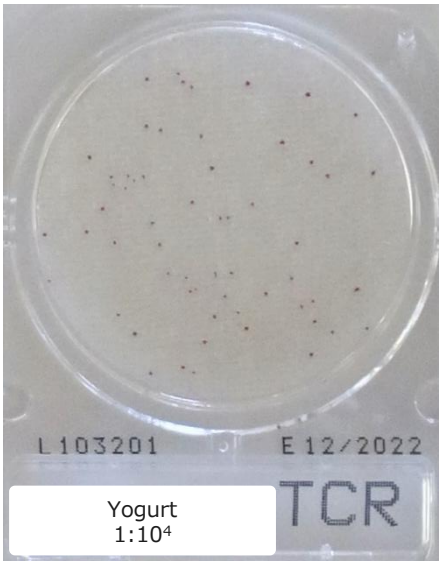
Daikon radish sprouts
$1:10^6$



Salad
$1:10^2$



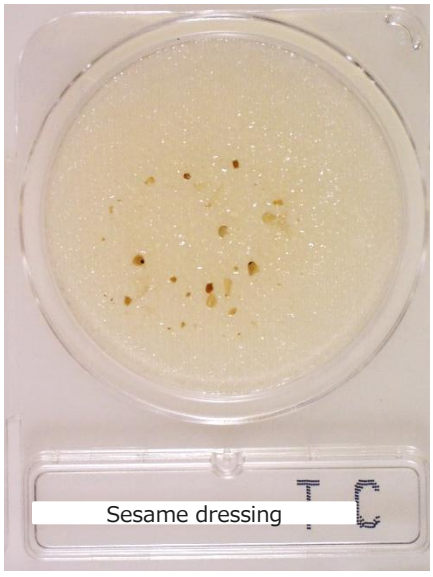
Red shrimp
1:10



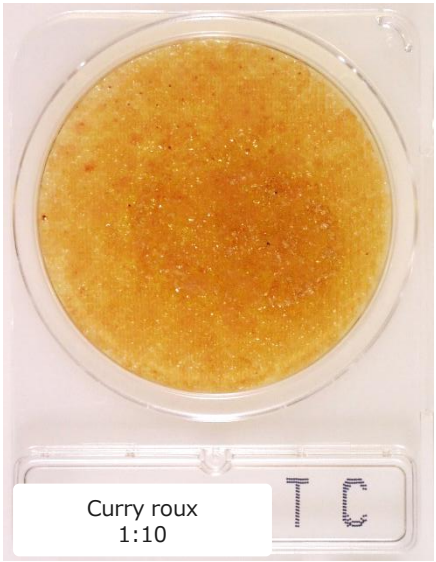
Yogurt
$1:10^4$

The microbial flora contained in food samples varies, resulting in the appearance of colonies with distinct shapes characteristic of each type.

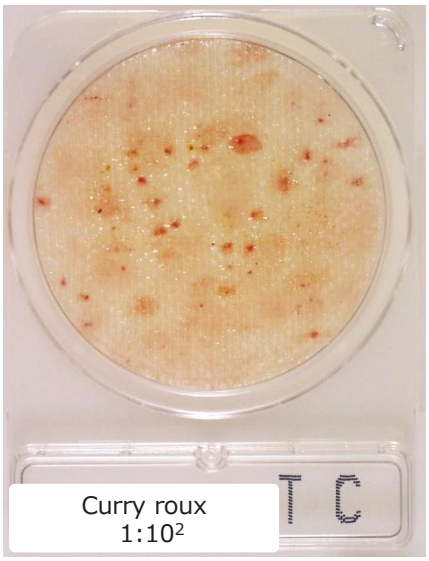
<Case study for TC>
*Same applies to TCR
Exercise caution, as food residue can easily be mistaken for colonies. Distinguishing between food residue and colonies is important. We recommend using filter bags.



Sesame dressing



Curry roux
1:10



Curry roux
$1:10^2$

← <Example using TC>
*Same applies to TCR With food samples that are deeply colored—such as curry roux—the sample's color can obscure the colonies, making them difficult to see. However, in the case of curry roux, further dilution makes counting possible.Spreading colonies (formed by heat-resistant spore-forming bacteria) are frequently observed in heat-treated food samples.

Tip! If the sample causes interference, dilute itto mitigate the effect.

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