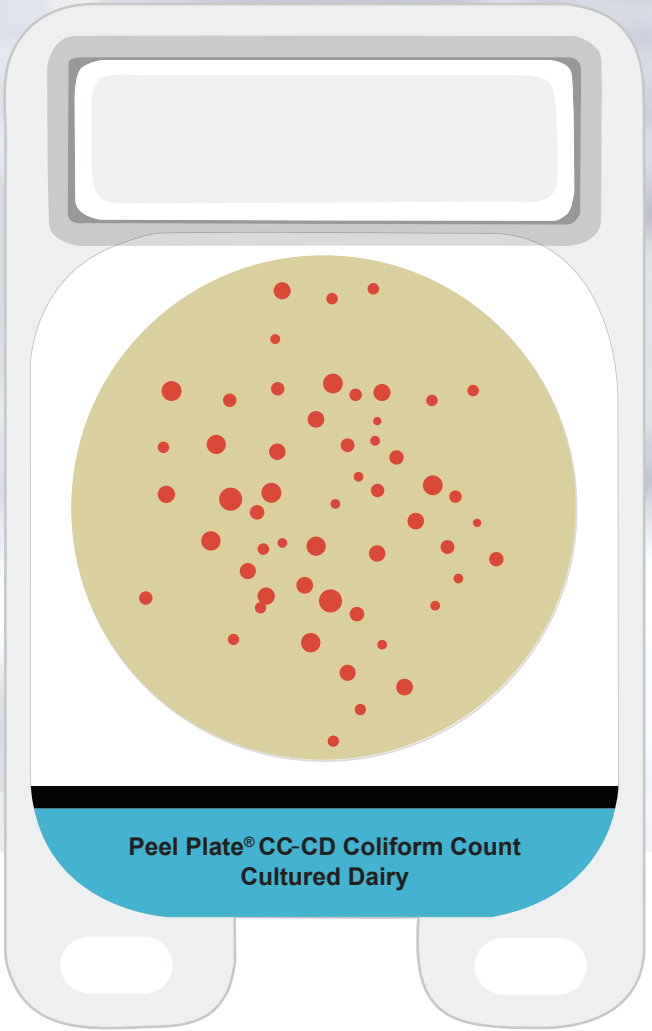
Formulated for Cultured Dairy

Peel Plate® CC
COLIFORM COUNT

For Cultured Dairy



Interpretation Guide

An introduction to using and interpreting results for Peel Plate® CC Microbial Tests for cultured dairy.

CHARM SCIENCES INC
NOTHING WORKS LIKE A CHARM

Introduction - Cultured Dairy

Peel Plate® CC Microbial Tests for Cultured Dairy diffuse the prepared/homogenized/diluted sample in media that contains selective agents and dyes designed for the determination of total coliform in dairy when incubated at 32 °C.

Since coliform ferment lactose, they have the ability to break down the enzyme substrate, salmon-gal, through the production of β-galactosidase, producing a red color.

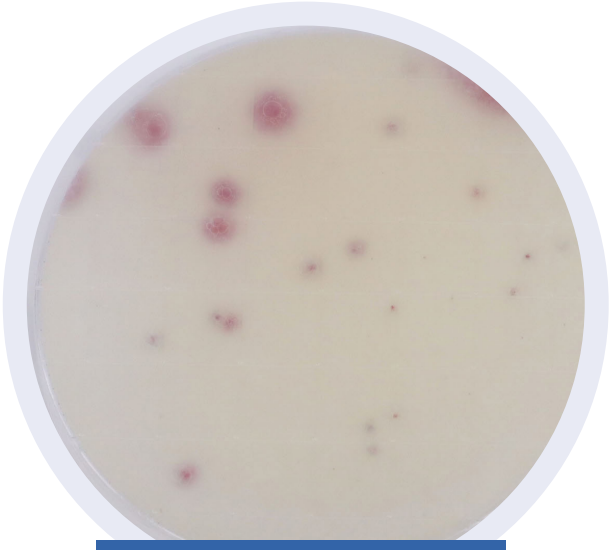
For best results, allow diluted cultured dairy sample to settle for at least 30 seconds before plating. Avoid pipetting product "clumps" onto the test plate whenever possible.

- **Sensitivity:** >1 CFU/mL of test sample
- **Accurate quantitative range:** 1 to 154 CFU/mL
- **Incubation**: 24 ± 2 hours at 32 °C

What You Can Expect to See

A Peel Plate CC Microbial Test for Cultured Dairy should be used to detect coliform in 24 hours in these cultured dairy products. Coliform growth in cultured dairy products like yogurt, cottage cheese, sour cream, and cheeses appears as distinct round, red colonies that may be surrounded by a reddish 'halo', though size may vary. Cultured dairy products contain culture enzymes that may react with the growth indicator in the Peel Plate CC-CD test, causing red shading on the background. Do not count diffuse gray spots or non-round spots as coliform CFU. See Troubleshooting section for reference.

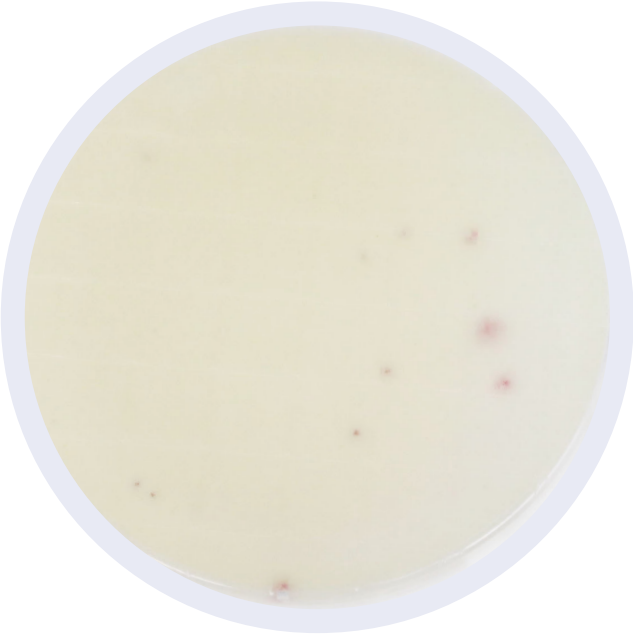
0 Colonies (No Growth)



Count all red colonies on the plate. Any tiny specks on the plate are not counted.

22 Colonies

1 Colony



10 Colonies

Some products with high culture enzyme activity, i.e. yogurts, may create a pink-colored background on the test plate. This is normal and the red colonies can are differentiated from the background shading.

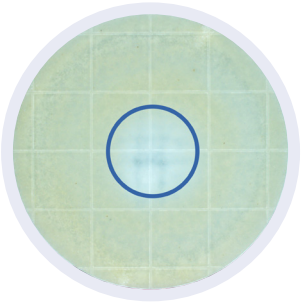
9 Colonies

For blended colonies, count each distinct colony center as 1 CFU

30 Colonies

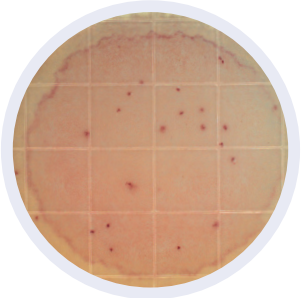
General Troubleshooting

Craters or Incomplete Wicking



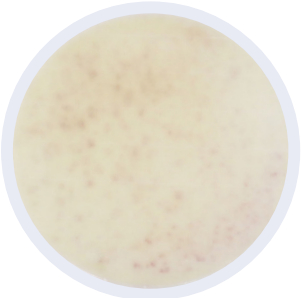
Craters are formed when the sample is dispensed too slowly or the pipette is held too far away from the media. Samples should be dispensed within 2-3 seconds and the pipette should be held 1-2 cm above the media. Although incomplete wicking does not effect counts, best practice is to make sure the sample wicks evenly across the plate. If your sample is too viscous to wick completely, additional dilution of the sample may be required or assist the wicking by lifting and rocking the plate. For more information on wicking, please contact Charm Technical Services.

Matrix Edge and Non-wicking

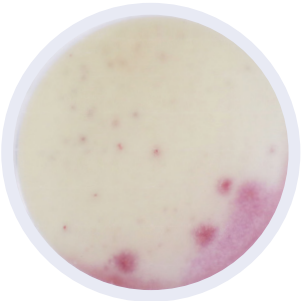


Many homogenates of cheese are thick and may wick slowly or may not wick completely. This can cause an appearance where the top is not completely absorbed with the matrix colloids creating an inner bullseye pattern. To avoid this effect allow the prepared sample to settle for 30-60 seconds before plating. Pipet rapidly into the center of the plate and assist distribution of the sample by lifting and rocking the plate so that it comes in contact with all edges before it absorbs.

Interference



Some matrices may produce interferences, especially when product "tissue" or "clumps" are plated directly onto the test plate. These may produce a reddish pigmentation on the test background or edge of plate. Do not count diffuse gray spots or non-round spots as coliform CFU. Red development and tiny red pinpoint growth on the edges of the plate should not be scored as coliform growth. A test with this kind of interference is invalid, if it is problematic in distinguishing the discoloration from coliform growth.



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