Peel Plate® EB
ENTEROBACTERIACEAE

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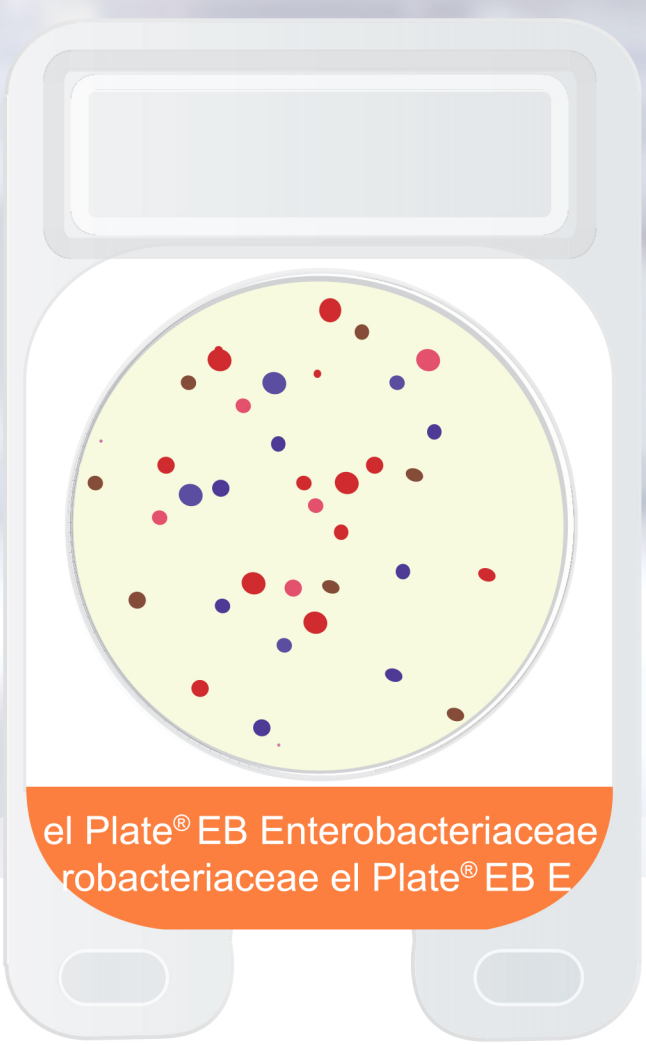


Interpretation Guide

An introduction to using and interpreting results for Peel Plate® EB Microbial Tests.

CHARM SCIENCES INC
NOTHING WORKS LIKE A CHARM

Introduction

The Peel Plate® EB Microbial Test is a prepared culture method used for the detection and enumeration of Enterobacteriaceae bacteria.

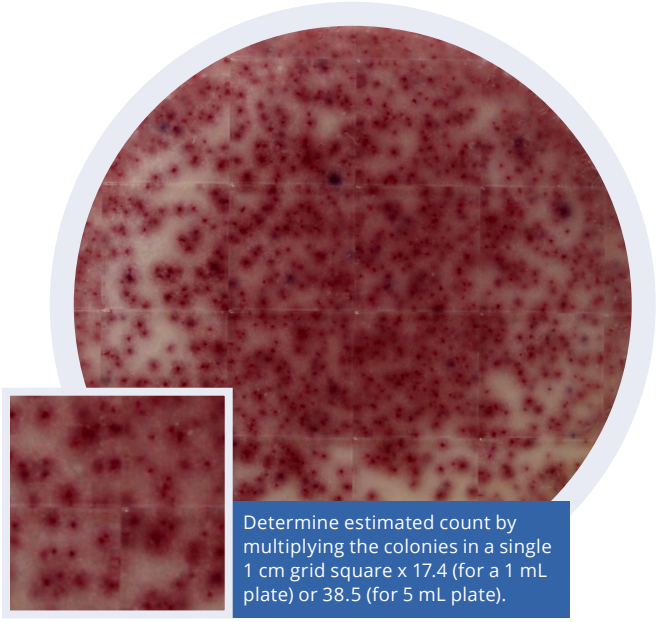
These tests can be used for testing liquid foods, solid foods, and environmental sponge samples. The red, purple, blue, and brown colored colonies of the Peel Plate EB test are easily counted against the white background of the test plate. Count colonies regardless of color and size. These colonies can be picked, cultured and confirmed oxidase negative or pH glucose agar positive.

- **Sensitivity:** >1 CFU/mL of test sample
- **Accurate quantitative range:** 1 to 150 CFU/mL
- **Incubation**: 24 to 48 hours at 37 °C

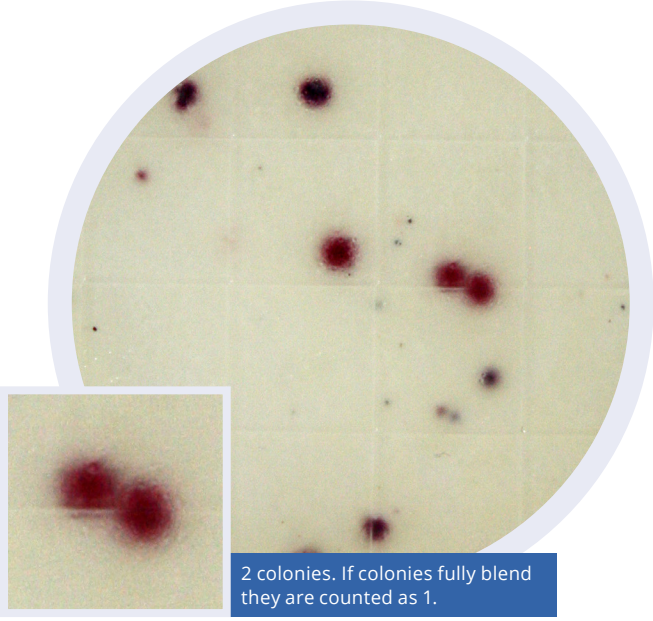
What You Can Expect to See

Depending on the matrix and product contaminants, colonies may be expressed differently.

0 Colonies (No Growth)

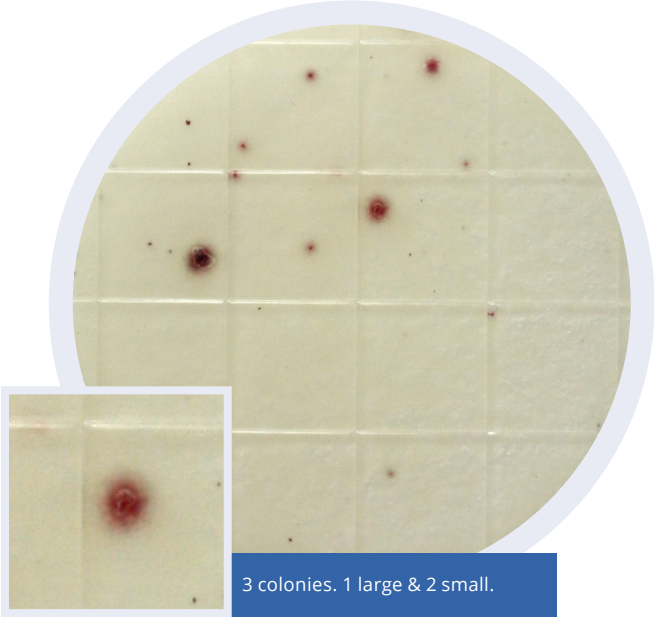


TNTC (Too Numerous to Count)



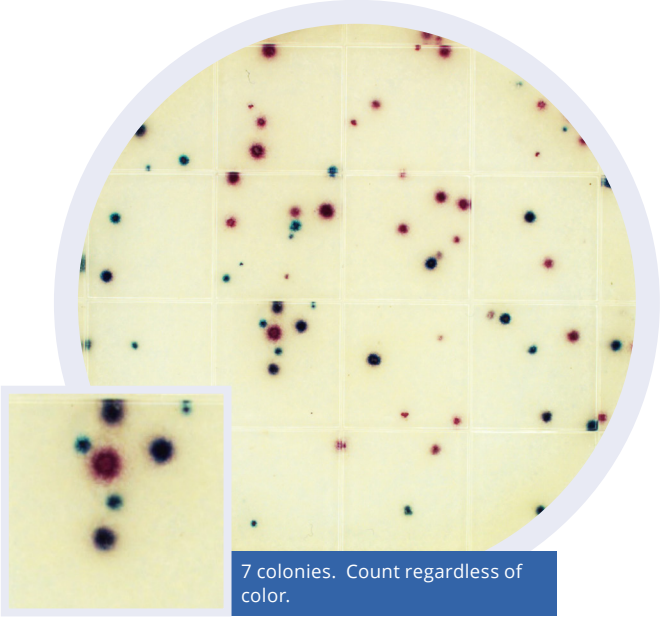
2 colonies. If colonies fully blend they are counted as 1.

26 Colonies (Chicken Carcass Rinse)



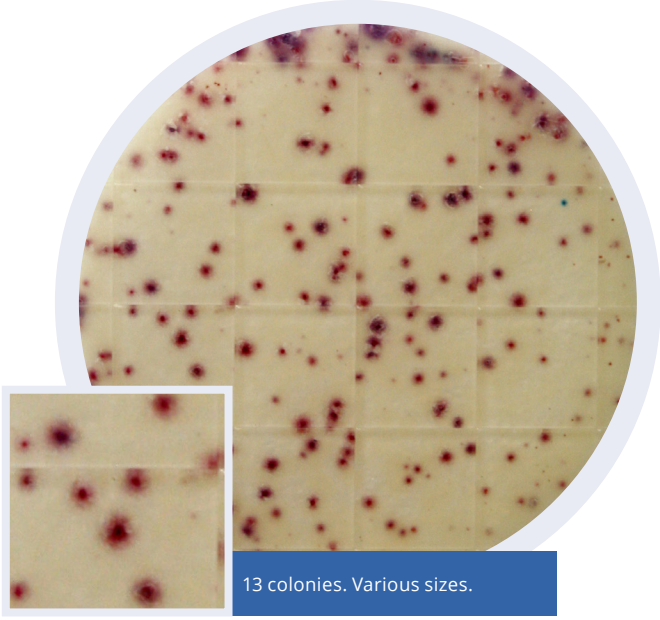
3 colonies. 1 large & 2 small.

25 Colonies (Powdered Milk)



7 colonies. Count regardless of color.

70 Colonies (Environmental)

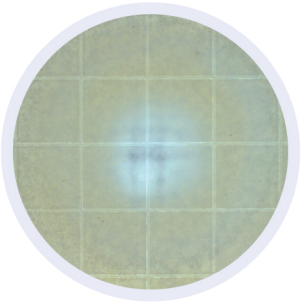


13 colonies. Various sizes.

242 Colonies (Raw Milk)

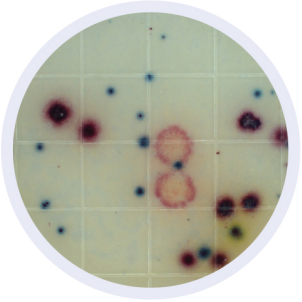
General Troubleshooting

Craters or Incomplete Wicking



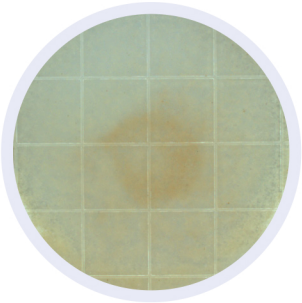
Craters are formed when the sample is dispensed too slowly or the pipette is held too far away from the media. Samples should be dispensed within 2-3 seconds and the pipette should be held 1-2 cm above the media. Although incomplete wicking does not effect counts, best practice is to make sure the sample wicks evenly across the plate. If 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.

Over Incubation/High Temperature



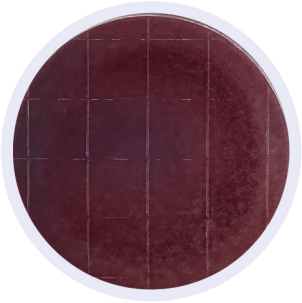
If plates are incubated for a longer amount of time or at a higher temperature than suggested by the Operator's Manual, colonies may start to expand and darken and may appear to "melt" together. For best results, please follow specific test incubation instructions as defined in the Operator's Manual.

Matrix Pattern on Tests



Some colloidal matrices like chocolate milk, or tomato paste, may have their particulates filter and concentrate at the site of sample delivery to the plate. This is most frequently observed with dilution pipets that inadequately mix sample during dilution. While matrix pattern does not affect the bacterial growth of plates, it can cause some interpretation questions. Matrix patterning may be reduced with mixing samples thoroughly before applying to test. Fruit and vegetable pulp that contain color may be mistaken as growth if not marked before incubation.

Background Color Interference



Some cultured dairy products like yogurt, cottage cheese, cheese and sour cream have cultures and enzymes that produce red backgrounds. Use a specially formulated Peel Plate EB Microbial Test for Cultured Dairy to reduce the red background.

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