

Food Coliform Detection Plate (2)



Cat. No. FSD-107

Lot. No. (See product label)

Product Name

Food Coliform Detection Plate (2)

Product Overview

Food Coliform Detection Plate (2) is designed for the detection of coliform in food and beverages.

Description

Food Coliform Detection Plate (2) is designed for the detection of coliform in food and beverages. This plate simplifies the process of experiment and shortens the time from 78hs to 24hs. It greatly saves the time of medium preparation, disinfection, and dish cleaning. This product is suitable for detection of coliform in food and beverages.

Scientific Background

Food Coliform Detection Plate (2) contains lactose bile salt medium and exclusive chromogenic agent TTC. The colonies that can grow on count plates and ferment lactose to produce acid are coliform. Record the quantity of count plates which shows positive result for each dilution. Then according to the MPN, check the corresponding quantity of coliform.

Detection method

Rapid Detection

Preparation

Sample preparation:

Prepare the 1:10 solution by placing 25 g or 25 mL sample into 225 mL sterilized phosphate buffer solution or sterilized saline and then shake fully. Adjust the PH value to 6.5-7.5 by 1 mol/L NaOH or 1 mol/L HCl. Prepare 1:100 solution by sucking 1 mL of solution (1:10) into 9 mL sterilized phosphate buffer solution or sterilized saline and then shake fully. According to the pollution level of sample, follow the above steps to prepare tenfold increasing serial dilution of sample. Replace the pipette with a new aseptic one each time when the next dilution is made. Make sure the whole process from solution preparation to inoculation is within 15 mins.

Assay Protocol

Inoculation:

- 1, Select two appropriate dilutions (1:10 and 1:100) to do the test for ordinary food; while for beverage, choose original sample and 1:10 diluted sample to do the test. This kind of count plate consists of three big plates (are used for inoculating 10mL, two pieces are superimposed as one big plate) and six small plates (are used for inoculating 1 mL).
- 2, Suck 10 mL of 1:10 diluted sample onto the count plates which are placed in the plastic bag (namely inoculate 1g of original sample). Place flatwise after it is soaked. Do three replicates. Suck 1 mL of the same diluted sample with aseptic pipette, and then drip it evenly onto the count plate (namely inoculate 0.1 g of original sample), do three replicates. Suck 1 mL of 1:100 diluted sample with another 1 mL aseptic pipette, and then drip it evenly onto the count plates which are placed in the plastic bags (namely inoculate 0.01 g of original sample), do three replicates.

Culture:

Superimpose these count plates and place them in the incubator at $36^{\circ}\text{C} \pm 1^{\circ}\text{C}$, culture for 15-24 hs.

Report

- 1, If the count plates turn yellow or show red spots on yellow background, it is positive result. If the count plates keep purplish blue color or show red spots without yellow halo, it is negative result.
- 2, Record the quantity of count plates which show positive results for every dilution ratio, and then check the corresponding quantity of coliform according to MPN table.
- 3, If one of the inoculating solutions is original sample, then the numerical value in the MPN table should be divided by 10.

Sample Type

FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY

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Food and Beverages

Storage

This kind of count plate should be placed in the fridge at 4-10 °C and the expiration time is one year. Once the package is opened, those unused count plates should be placed back to the package and then seal it well. Store them in the fridge and exhaust them within one month. Condensation may occur in high humid environment, it is better to warm the package back to room temperature before unfolding it.

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