



Standard Plate Count Medium w/ TTC (without Membrane Filter)

MF002

For total bacterial detection and enumeration with added growth indicator.

Composition**

| Ingredients | Gms / Litre |
|-------------------------------------|-------------|
| Casein enzymic hydrolysate | 5.000 |
| Yeast extract | 2.500 |
| Dextrose | 1.000 |
| 2,3,5-Triphenyl tetazolium chloride | 0.100 |

**Formula adjusted, standardized to suit performance parameters

Directions

The test sample should be filtered through a sterile membrane filter having pore size of 0.22 μ / 0.45 μ . Rehydrate the nutrient pad with 2.0 - 2.5 ml sterile distilled / purified water. After filtration, remove the membrane filter aseptically using sterile forceps. Place the membrane filter on rehydrated nutrient pad. Incubate the inoculated nutrient. Interpret the results qualitatively by observing the presence or absence of growth and quantitatively by counting the number of colonies on the surface of the membrane filter and calculating CFU/ml.

Principle And Interpretation

Field of Application: Water, milk, food and other samples, waste water, beverages. DriFilter Membrane Nutrient Pad Medium is ready to use sterile culture media in the form of a 50 mm biological inert absorbent pads impregnated with Standard Plate Count medium, then dried and sterilized in 55 mm petri plate. They eliminate the need of laborious media preparation and autoclaving procedures. The nutrient pads are to be just rewetted with sterile distilled water and are ready to use. Use of nutrient pads allows larger sample volumes to be tested at a time. Interpretation of results is directly by counting the CFUs and also quantifies the microbial load present in the sample. MF002, Standard Plate Count Medium w/ TTC has growth indicator as TTC (2,3,5-Triphenyl tetazolium chloride) due to which the colonies can be visualized as red to maroon in colour hence ease in detection and further enumeration. The medium contains casein enzymic hydrolysate and yeast extract which supply necessary nitrogenous source to growing organisms. Dextrose serves as a carbon and energy source.

Quality Control

Appearance

Dry filter membrane pad of 50mm diameter

Colour

Pale coloured nutrient pad

Sterility test

Passes release criteria

Cultural response

Cultural characteristics observed after incubation at 35-37°C for 18-24 hours

| Organism | Growth | Colour of colony |
|---|-----------|------------------|
| <i>Escherichia coli</i> ATCC 25922 | Luxuriant | Red to maroon |
| <i>Staphylococcus aureus</i> ATCC 25923 | Luxuriant | Red to maroon |

Enterococcus faecalis ATCC Luxuriant Red to maroon
29212

Storage and Shelf Life

Store between 10-30°C. Use before expiry date on the label.

Reference

1. Rosenow, 1919, J. Dental Research, 1:205. 2. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria Vol. I, Williams and Wilkins, Baltimore. 3. Atlas R. M., 1993, Handbook of Microbiological Media, 147-153, CRC Press, Boca Raton, FL. 4. Downes F. P. and Ito K., (Eds.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., APHA, Washington, D.C. 5. Roseburg T. et al, 1944, J. Inf. Dis., 74:131 6. Conant N. F., 1950, Diagnostic Procedures and Reagents, 3rd Ed., APHA Inc., New York 7. Howard B., Keiser J. F., Weissfeld A. et al, 1994, Clinical and Pathogenic Microbiology, 2nd Ed., Mosby Co. 8. Murray P. R., Baron J. H., Pfaller M. A., Jorgensen J. H. and Tenover F. C., (Eds.), 2003, Manual of Clinical Microbiology, 8th Ed., American Society for Microbiology, Washington, D.C.



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