Technical Data

MacConkey Medium(Economy Pack)(without Membrane Filter)

MF012E

For detection and enumeration of coliforms.

Composition**

Propriatery

Directions

The test sample should be filtered through a sterile membrane filter having pore size of 0.22µ / 0.45µ. 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, waste Water, milk & food. 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 MacConkey 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. MacConkey Broth Purple w/ BCP is a modification of MacConkey Medium (1). Childs and Allen (2) demonstrated the inhibitory effect of neutral red and therefore substituted it by the less inhibitory bromocresol purple dye. BCP is more sensitive in recording pH variation in the medium. Peptic digest of animal tissue provides essential growth nutrients. Lactose is the fermentable carbohydrate. Sodium taurocholate inhibits gram-positive organisms. Sodium chloride maintains the osmotic balance of the medium. Bromocresol purple is the pH indicator in the medium which turns yellow under acidic condition. Lactose fermentation turn the medium yellow due to the acidity produced on lactose fermentation. The colour change of the dye is observed when the pH of the medium falls below 6.8. Lactose non-fermenting organisms like *Salmonella* and *Shigella* do not alter the appearance of the medium.

Quality Control

Appearance
Dry filter membrane pad of 50mm diameter

Colour
Light pink coloured nutrient pad

Sterility test
Passes release criteria

Cultural response
Cultural characteristics observed after incubation at 35-37ºC for 18-24 hours

Organism	Growth	Colour of colony
Escherichia coli ATCC 25922	Luxuriant	Pink
S. serotype choleraesuis ATCC 12011	Luxuriant	Colourless

Storage and Shelf Life

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

Reference

1. MacConkey A. T., 1900, The Lancet, ii: 20. 2. Childs E. and Allen, 1953, J. Hyg: Camb. 51:468-477

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