

# InTray™ m-Endo LES



A SELECTIVE CULTURE SYSTEM FOR ISOLATION  
AND ENUMERATION:

## m-Endo Medium LES

For total Coliform count  
in water samples using Membrane Filter  
Procedures  
For *In Vitro*, Analytical Use Only

### INTENDED USE:

The InTray™ Total Coliform Test utilizes a selective indicator medium (m-Endo LES) for use in presumptive identification and enumeration of Coliform colonies in water samples.

### DESCRIPTION:

This media is specified by both the APHA<sup>1</sup> and the US EPA<sup>2</sup> for the detection of total Coliforms. The device is designed to interface directly with standard methods for bacterial testing of water samples using the Membrane Filter (MF) Technique<sup>1</sup>.

### STORAGE:

Upon receipt, store the InTray™ Total Coliform test under refrigeration (2-8°C). Avoid freezing or prolonged storage at temperatures above 40°C. Do not open until ready to use. Do not use if the medium shows signs of deterioration or contamination. Expiration is 12 months past the date of manufacture.

### INSTRUCTIONS FOR USE:

#### MF PROCEDURE<sup>1</sup>:

Select the volume of water to be examined in accordance with the information given in method 9222 D of: *Standard Methods for the Examination of Water and Waste Water*, 21<sup>st</sup> edition. Using sterile forceps, place a sterile membrane filter on the filtration apparatus. Filter the sample through the membrane and rinse with an appropriate amount of water.

#### INOCULATION PROCEDURE:

Allow the InTray™ to warm to room temperature before inoculation. Pull back the lower right corner adjacent to the clear window of the InTray™ label until the protective seal is completely visible. Remove the seal by pulling the tab (Fig. 1). **Discard** the seal. **DO NOT REMOVE OR ALTER THE WHITE FILTER STRIP OVER THE VENT HOLE!**

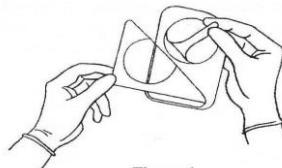


Figure 1

Using sterile technique, remove the filter from the MF apparatus and gently apply it (grid side up) to the surface of the agar in the InTray™ (Fig. 2).

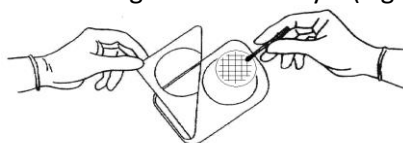


Figure 2

Reseal the InTray™ by pressing together the edges of the label against the InTray™. **Press all around the InTray™ to ensure a complete seal** (Fig. 3). Immediately label the InTray™ with patient or sample information and date. **DO NOT COVER THE VIEWING WINDOW.**



Figure 3

### INCUBATION:

Incubate the inoculated InTray™ at an aerobic atmosphere of 35 ± 0.5°C for 20-24hrs. The specificity of the fecal Coliform test is dependent on the incubation temperature.

### CULTURE AND RESULTS:

Colonies produced by Coliform bacteria on m-Endo medium are red with metallic sheen. Non-coliform colonies are colorless to pink. Few non-coliform colonies should be observed on m-Endo LES Medium because of the selective action of the medium.

### PLATE COUNT:











To determine colony counts on membrane filters, use a low-power binocular dissecting scope with a cool-white light source. Count all colonies on the membrane where there are 2 or less colonies per square. For 3-10 colonies per square, count 10 squares and obtain an average count per square. For 10-20 colonies per square, count 5 squares and obtain an average count per square. Multiply the average count per square by 100 and divide by the sample volume to give colonies per milliliter. If there are more than 20 colonies per square; record the count as >2000 per sample volume.

### COLONY MORPHOLOGY:

Organism	Colony Appearance
<i>E. coli</i>	Pink to Rose-red, Green metallic sheen
<i>Enterobacter/Klebsiella</i>	Large, mucoid. Pink
<i>Proteus</i>	Colorless, Pale Pink
<i>Salmonella</i>	Colorless, Pale Pink
<i>Shigella</i>	Colorless, Pale Pink
<i>Pseudomonas</i>	Irregular. Colorless
Gram-positive Bacteria	No Growth/Inhibition

**REFERENCES:**

1. Eaton, Clesceri, Rice and Greenberg (ed.). 2005. *Standard Methods for the Examination of Water and Waste Water*, 21<sup>st</sup> ed. American Public Health Association, Washington D.C
2. Kim and Feng. 2001. In Downes and Ito (eds.), *Compendium of Methods for the Mibrobial Examination of foods*, 4<sup>th</sup> edition. American Public Health Association, Washington D.C.
3. Bordner and Winter (ed). 1978. *Microbiological methods for monitoring the environment, water and wastes*. EPA 600/8-78-017. U.S. Environmental Protection Agency, Cincinnati, OH.
4. U.S. EPS. 1992. *Manual for the Certification of Laboratories Analyzing Drinking Water*. EPS-814B-92-002. Office of Ground Water and Technical Support Division, ESEPA, Cincinnati, OH.

SYMBOL KEY			
Symbol	Used For	Symbol	Used For
	Batch code		Temperature limitation
	Date of manufacture		Catalog number
	Use by YYYY-MM-DD or YYYY-MM		Caution, consult accompanying documents
	Manufacturer		Authorized representative in the European Community
	In vitro diagnostic medical device		in European community

