TMV 151 – LAURYL TRYPTOSE MANNITOL BROTH W/TRYPTOPHAN (VEG.)

INTENDED USE

For detection of *Escherichia coli* in water.

PRODUCT SUMMARY AND EXPLANATION

Identification of bacteria that constitute the coliform group sometimes is necessary to determine the nature of pollution. It is of particular importance in reference to distinguishing the presence of *Escherichia coli*, an indicator of fecal contamination. Lauryl Tryptose Mannitol Broth w/ Tryptophan is a single tube medium used for the confirmation of *E. coli* in drinking water as recommended by report 71. This medium is also recommended by the ISO committee and is also a suitable medium as per the requirements of the EC Directive for the quality of drinking water. This medium may be used in parallel to Lauryl Tryptose Broth to detect non-lactose fermenting strains of *E. coli*.

COMPOSITION

Ingredients	Gms / Ltr
Veg. hydrolysate	20.000
Mannitol	5.000
Sodium chloride	5.000
Dipotassium phosphate	2.750
Monopotassium phosphate	2.750
Sodium lauryl sulphate	0.100
L-Tryptophan	0.200

PRINCIPLE

This medium consists of Veg hydrolysate which is the source of carbon, nitrogen, vitamins, amino acids and other essential growth requirements. Mannitol is the fermentable carbohydrate. Phosphates buffer the medium whereas sodium lauryl sulphate serves to inhibit accompanying non coliform bacteria. L-tryptophan is a substrate of tryptophan deaminase enzyme.

INSTRUCTION FOR USE

- Dissolve 35.8 grams in 1000 ml purified/distilled water.
- Warm gently to dissolve the medium completely. Dispense in tubes with inverted Durham's tubes.
- Sterilize by autoclaving at 115°C for 10 minutes. Cool to 45-50°C.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Yellow coloured, clear solution without any precipitate.
pH (at 25°C) : 6.8 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.

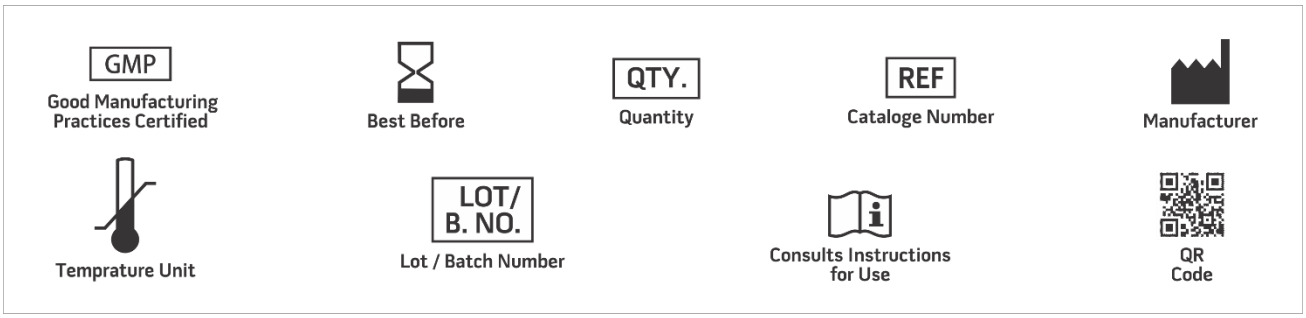
Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Gas	Indole Production	Incubation Temperature	Incubation Period
Escherichia coli	25922	50-100	Luxuriant	Positive reaction	Positive reaction, red ring at the interface of the medium	44°C	24 Hours
Enterobacter aerogenes	13048	>=10^4	Inhibited	-	-	44°C	24 Hours
Staphylococcus aureus subsp. aureus	25923	>=10^4	Inhibited	-	-	44°C	24 Hours

PACKAGING:
In pack size of 500 gm bottles.

STORAGE
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL
After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES
1. Departments of the Environment, Health and Social Security and Public Health Laboratory Service, 1982, The Bacteriological Examination of Drinking Water Supplies, Report on Public Health and Medical Subjects No. 71, HMSO, London.
2. International Organization for Standardization (ISO), 1990, Draft ISO/DIS 9308.
3. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
4. Joint Circular 20/82, Departments of the Environment, 1982, incorporating EC Directive relating to the Quality of Water intended for Human Consumption (80/778/EEC), HMSO, London.
5. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.
***For Lab Use Only**

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