TMV 757 – LACTOSE BROTH (FLUID LACTOSE MEDIUM) (VEG.)

INTENDED USE

For detection of coliform bacteria in water and food products.

PRODUCT SUMMARY AND EXPLANATION

Examination of water, foods, ingredients and raw materials, for the presence of marker groups such as coliforms is one of the most common tests in a microbiology laboratory, partly because of the relative ease and speed with which these tests can be accomplished. It is a valuable bacterial indicator for determining the extent of fecal contamination of recreational surface waters or drinking water.

Lactose Broth (Veg) is prepared by using vegetable peptone in place of animal based peptone, making the medium free of BSE/TSE risks. Lactose Broth (Veg) is the modification of Lactose Broth which is recommended by APHA in the performance and confirmation of the presumptive test for coliform bacteria in water, food and milk. This medium was initially listed as an alternative to Lauryl Sulfate Broth in the presumptive Standard Total Coliform Multiple-Tube (MPN) Test for water analysis.

COMPOSITION

Ingredients	Gms / Ltr
Veg Peptone	5.000
Veg extract	3.000
Lactose	5.000

PRINCIPLE

This medium consists of Veg Peptone and Veg extract which supply nitrogenous and carbonaceous compounds, long chain amino acids and other essential nutrients to the organisms. Lactose is a fermentable carbohydrate for the coliforms.

INSTRUCTION FOR USE

- Dissolve 13.0 grams in 1000 ml purified/distilled water.
- Heat if necessary to dissolve the medium completely. For larger inocula (10 ml or more), concentrated medium may be prepared to account for medium dilution by the inoculum.
- Dispense in tubes containing inverted fermentation vial (Durham's tube) as desired.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.

Appearance of prepared medium : Light amber coloured clear solution without any precipitate.

pH (at 25°C) : 6.9 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Gas	Incubation Temperature	Incubation Period

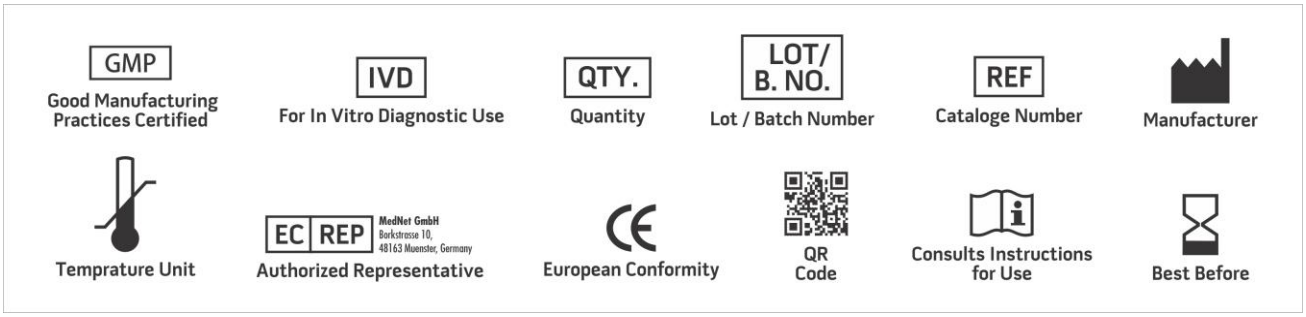
Klebsiella aerogenes	13048	50-100	Luxuriant	Positive reaction	35-37°C	18-48 Hours
Enterococcus faecalis	29212	50-100	Luxuriant	Negative reaction	35-37°C	18-48 Hours
Escherichia coli	25922	50-100	Luxuriant	Positive reaction	35-37°C	18-48 Hours
Pseudomonas aeruginosa	27853	50-100	Luxuriant	Negative reaction	35-37°C	18-48 Hours
Pseudomonas aeruginosa	9027	50-100	Luxuriant	Negative reaction	35-37°C	18-48 Hours
Escherichia coli	8739	50-100	Luxuriant	Positive reaction	35-37°C	18-48 Hours

PACKAGING:
In pack size of 100 gm and 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. Corry J. E. L., Curtis G. D. W., and Baird R. M., Culture Media for Food Microbiology, Vol. 34, Progress in Industrial Microbiology, 1995, Elsevier, Amsterdam
2. Eaton A. D., Clesceri L. S., Rice E. W. and Greenberg A W.(Eds.), 2005, Standard Methods for the Examination of Water and Wastewater, 21st Ed., APHA, Washington, D.C.
3. Downes F. P. and Ito K., (Eds.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., APHA, Washington, D.C.
4. Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed., APHA Inc., Washington, D.C.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

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