

Fluid Lactose Medium

Intended Use

Fluid Lactose Medium is recommended for the detection of coliform bacteria in water, dairy products and food samples.

Summary

Coliforms, Gram-negative, lactose-fermenting organisms, are regarded as bacterial indicators of sanitary quality of foods and water. *Salmonella* is a rod shaped Gram-negative Enterobacteria commonly implicated in foodborne illness. Since these bacteria are present in low numbers in food and other products, before subjecting them to selective enrichment, a pre-enrichment is necessary for maximum recovery. Also, the presence of non-coliform bacteria and flora indigenous to the sample may interfere with the growth and recovery of coliforms. Therefore, pre-enrichment in a non-selective medium facilitates detection of sub lethally injured cells. Fluid Lactose Medium is a pre-enrichment medium, recommended by APHA, for the detection of coliform bacteria in water, dairy products and food samples. A resulting drop in pH generates a bacteriostatic effect on the other competing lactose utilizing microflora. It is also used in the performance of microbial limit test for *Salmonella* species and *Escherichia coli*.

Principle

Beef extract and pancreatic digest of gelatin provide essential nutrients for bacterial metabolism. Lactose is the sole source of fermentable carbohydrate. Growth with gas formation is a presumptive test for coliforms. Whenever there is larger inoculum multiple strength lactose broth is used.

Formula*

Ingredients	g/L
Pancreatic Digest of Gelatin	5.0
Lactose	5.0
Beef Extract	3.0
Final pH (at 25°C)	7.3 ± 0.2

*Adjusted to suit performance parameters.

Directions

1. Bring the Fluid Lactose Medium vial to the room temperature 22°C-30°C.
2. Use Fluid Lactose Medium as per required application.

Quality Control

Appearance: Light amber coloured, clear solution without any precipitate.

Cultural Response: Growth is observed after an incubation at 30°C-35°C for 18-48 hours.

Organism (ATCC)	Growth	Gas
<i>Enterobacter aerogenes</i> (13048)	Good	+
<i>Escherichia coli</i> (8739)	Good	+
<i>Pseudomonas aeruginosa</i> (9027)	Good	-
<i>Enterococcus faecalis</i> (29212)	Good	-

Remarks

1. Do not use media bottles that exhibit any damage, cracks, microbial contamination, discoloration, drying or other sign of deterioration.
2. Good laboratory practices and hazard precautions must be observed at all times.
3. After use media containers, sample, sample containers and other contaminated materials must be sterilized or incinerated before discarding.

4. All autoclaved biohazards should be disposed off in accordance with state and local environmental regulations.
5. Only qualified personnel who have been trained in microbiological procedures should handle all infected specimens and inoculated culture media.
6. User should ensure that any machinery or apparatus used and by chance contaminated must be safely disinfected or sterilized. The environment in which microbiological cultures are handled must also be taken into account.

Storage and Stability

1. Store the ready to use Fluid Lactose Medium at 15°C-25°C in a cool, dry place away from light.
2. Stability of the kit is as per expiry date mentioned on the label.

Warranty

This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

References

1. Greenberg A. E., Clesceri L. S. and Eaton A. D., (Eds.), 1998, Standard Methods for the Examination of Water and Waste Water, 20th Ed., APHA, N.Y.
2. Marshall R. T., (Ed.), 1992, Standard Methods for the Examination of Dairy Products, 16th Ed., APHA, N.Y.
3. Downes F. P. and Ito K. (Ed.). 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., American Public Health Association, Washington, D.C.
4. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat. No.	Product Description	Pack Size
203060170100	Bottle Media	100 mL

Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.
