

TM 967 – FUCHSIN LACTOSE BROTH

INTENDED USE

For detection of coliforms in water.

PRODUCT SUMMARY AND EXPLANATION

Fuchsin Lactose Broth is a selective medium, which may be used in parallel with Lactose Broth in the control of water filtration plant operation. Basic fuchsin inhibits many gram-positive organisms, which are responsible for false positive results. However, Fuchsin Lactose Broth may not be used as Lactose Broth with all waters, but could be used as a confirmatory medium. This was studied by McCrady while studying procedures for the detection of the presence of coliforms in water. Acid production is observed by the formation of pink to red medium whereas non-fermenters will show no change in the colour of the medium.

COMPOSITION

Ingredients	Gms / Ltr
Peptone, special	5.000
Meat extract	3.000
Lactose	5.000
Basic fuchsin	0.013

PRINCIPLE

The medium consists of Peptone special and Meat extract in the medium which provides nitrogen and carbon source, long chain amino acids and other essential nutrients necessary to support bacterial growth. Basic fuchsin inhibits many gram-positive organisms, which are responsible for false positive results. Lactose is the fermentable carbohydrate.

INSTRUCTION FOR USE

- Dissolve 13.0 grams in 1000 ml purified/distilled water.
- Heat if necessary to dissolve the medium completely.
- Dispense in tubes containing inverted Durhams tubes and Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Cool to 45-50°C.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Light pink to purple homogeneous free flowing powder.
Appearance of prepared medium	: Light pink 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	Acid	Gas	Incubation Temperature	Incubation Period



<i>Klebsiella aerogenes</i>	25922	50-100	Good-luxuriant	Positive reaction, pink-red colour	Negative reaction	35-37°C	18-48 Hours
<i>Escherichia coli</i>	19610	50-100	Luxuriant	Positive reaction, pink-red colour	Positive reaction	35-37°C	18-48 Hours
<i>Salmonella</i> Enteritidis	25204	50-100	Luxuriant	Negative reaction, no change	Negative reaction	35-37°C	18-48 Hours
<i>Salmonella</i> Typhimurium	14028	50-100	Luxuriant	Negative reaction	Negative reaction	35-37°C	18-48 Hours
<i>Staphylococcus aureus</i> subsp. <i>aureus</i>	25923	$\geq 10^3$	Inhibited	-	-	35-37°C	18-48 Hours
<i>Enterococcus faecalis</i>	29212	$\geq 10^3$	inhibited	-	-	35-37°C	18-48 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. Baird R.B., Eaton A.D., and Rice E.W., (Eds.), 2015, Standard Methods for the Examination of Water and Wastewater, 23rd ed., APHA, Washington, D.C.
2. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
3. 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.
4. McCrady, 1937, Am. J. Publ. Health, 27:1243.
5. Ritter, 1932, J. Am. Water Works Assoc., 24:413.
6. Standard Methods for the Examination of Water and Sewage, 1946, 9th Ed., p. 226.



 GMP Good Manufacturing Practices Certified	 Best Before	 Quantity	 Catalogue Number	 Manufacturer
 Temperature Unit	 Lot / Batch Number	 Consults Instructions for Use	 QR Code	

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

***For Lab Use Only**
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