

TM 1921 – PHENOL LACTOSE BROTH (ISO 9308-1-2014)

INTENDED USE

For lactose fermentation studies of coliforms.

PRODUCT SUMMARY AND EXPLANATION

Lactose fermentation is a characteristic that is of great practical importance in the primary isolation of pathogenic enterobacteria. This single characteristic makes possible an immediate presumptive distinction between the intestinal commensals of various genera which ferment lactose and those of the intestinal pathogens i.e. *Salmonella*, *Shigella*, which do not ferment lactose. Phenol Red Lactose Broth is formulated as recommended by ISO Committee for studying lactose fermentation by coliforms, which is an important differentiating characteristic for the members of Enterobacteriaceae.

COMPOSITION

Ingredients	Gms / Ltr
Peptic digest of animal tissue	10.000
Sodium chloride	5.000
Lactose	10.000
Phenol red	0.018

PRINCIPLE

The medium consists of Peptic digest of animal tissue which provides nitrogenous compounds and other essential growth nutrients. Phenol red is the pH indicator, which turns yellow in acidic condition. 18-24 hours old pure culture is inoculated and incubated at 35 to 37°C for 18-24 hours or Upto 30 hours.

INSTRUCTION FOR USE

- Dissolve 25.02 grams in 1000 ml distilled water.
- Heat if necessary to dissolve the medium completely.
- Dispense in tubes with inverted Durhams tubes. Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Light yellow to pink homogeneous free flowing powder.
Appearance of prepared medium : Red coloured clear solution without any precipitate.
pH (at 25°C) : 7.5±0.2

INTERPRETATION

Cultural characteristics observe after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Acid	Gas	Incubation Temperature	Incubation Period
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<i>Escherichia coli</i>	25922	50-100	Luxuriant	Positive reaction, yellow colour	Positive reaction	35 - 37°C	18 - 24 Hours
<i>Enterobacter aerogenes</i>	13048	50-100	Luxuriant	Positive reaction, yellow colour	Positive reaction	35 - 37°C	18 - 24 Hours
<i>Klebsiella pneumoniae</i>	13883	50-100	Luxuriant	Positive reaction, yellow colour	Positive reaction	35 - 37°C	18 - 24 Hours
<i>Proteus vulgaris</i>	13315	50-100	Luxuriant	Negative reaction, no colour change	Negative reaction	35 - 37°C	18 - 24 Hours
<i>Salmonella Typhimurium</i>	14028	50-100	Luxuriant	Negative reaction, no colour change	Negative reaction	35 - 37°C	18 - 24 Hours
<i>Shigella flexneri</i>	12022	50-100	Luxuriant	Negative reaction, no colour change	Negative reaction	35 - 37°C	18 - 24 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.

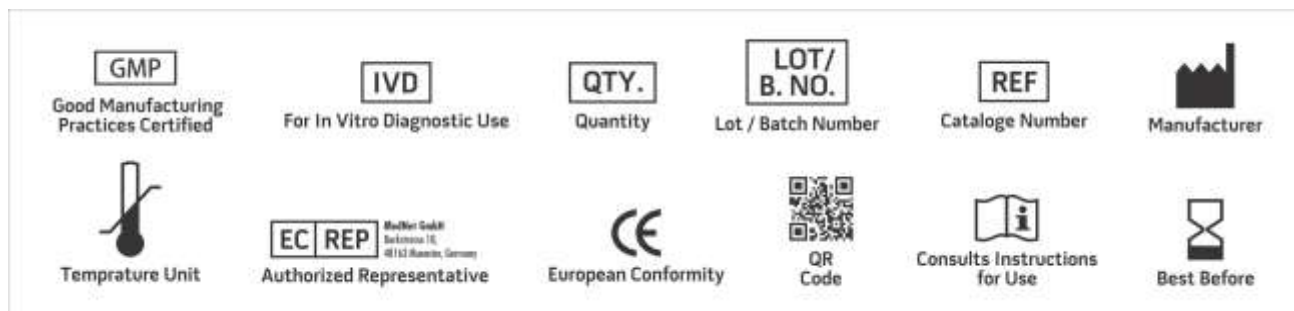
DISPOSAL

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

REFERENCES

1. Collee J. G., Fraser A. G., Marmion B. P., Simmons A., (Eds.), 1996, Mackie and McCartney, Practical Medical Microbiology, 14th Edition, Churchill Livingstone
2. International Organization for Standardization, 1990, Draft ISO/DIS 9308-1.
3. Finegold S. M. and Baron E. J., 1986, Bailey and Scotts Diagnostic Microbiology, 7th Ed., The C.V. Mosby Co., St. Louis.





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

***For Lab Use Only**
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