



## Lactic Phage Broth

M968

### Intended Use:

Recommended for enumeration of bacteriophages active against starter cultures employed in cheese manufacturing.

### Composition\*\*

Ingredients	Gms / Litre
Tryptone	10.000
Yeast extract	5.000
HM peptone B #	5.000
Lactose	10.000
Dipotassium hydrogen phosphate	5.000
Final pH ( at 25°C)	6.8±0.2

\*\*Formula adjusted, standardized to suit performance parameters

# Equivalent to Beef extract

### Directions

Suspend 35 grams in 1000 ml purified / distilled water. Heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

### Principle And Interpretation

Lactic streptococci are of critical importance to the dairy fermentation industry because these bacteria supply the lactic acid for the curd production and their metabolic products impart characteristic and desirable flavors. Bacteriophages play a vital role as they infect the starter cultures resulting in insufficient acid production (1)

This medium is recommended for the bacteriophage detection. Tryptone and HM peptone B provides all the essential nutrients especially nitrogenous sources for the organisms. Dipotassium phosphate is the buffering agent and lactose is the carbon source in the medium.

### Type of specimen

Dairy samples

### Specimen Collection and Handling

For dairy samples, follow appropriate techniques for sample collection and processing as per guidelines (1,9).

After use, contaminated materials must be sterilized by autoclaving before discarding.

### Warning and Precautions :

Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling specimens. Safety guidelines may be referred in individual safety data sheets.

### Limitations :

1. The maintenance of pH is very important as lower pH results in injury and reduced recovery of lactic Streptococci.

## Quality Control

### Appearance

Cream to yellow coloured homogeneous free flowing powder

### Colour and Clarity of prepared medium

Light amber coloured clear to slightly opalescent gel forms in Petri plates.

### Reaction

Reaction of 3.5% w/v aqueous solution at 25°C. pH : 6.8±0.2

### pH

6.60-7.00

### Cultural Response

Cultural characteristics observed after an incubation at 30°C for 18.

### Organism

### Growth

*Leuconostoc dextranicum* good-luxuriant

*Streptococcus cremoris* good-luxuriant

ATCC 19257

*Lactobacillus lactis* ATCC luxuriant

8000

*Streptococcus thermophilus* good-luxuriant

ATCC 14485

## Reference

1.Elliker,P.R. 1950. The problem of bacteriophage in the dairy industry. p.24-29. Proc. 11th Annu. Biol. Colloq., Oregon State Univ.

Revision : 1 / 2011

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