

# **Technical Information**

### **Lactic Phage Broth**

**Product Code: DM 1968** 

**Application:** - Lactic Phage Medium (Broth) is recommended for enumeration of bacteriophages active against starter cultures used in cheese manufacturing.

### Composition\*\*

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Ingredients	Gms / Litre	
Casein enzymic hydrolysate	10.000	
Yeast extract	5.000	
Beef extract	5.000	
Lactose	10.000	
Dipotassium phosphate	5.000	
Final pH ( at 25°C)	6.8±0.2	
**Formula adjusted, standardized to suit perform	mance parameters	

Principle & 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 thestarter cultures resulying in insufficient acid production (1)

This medium is recommended for the bacteriophage detection Casein enzymic hydrolysate, yeast extract and beef extract supplies 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.

## Methodology

Suspend 35 grams of dehydrated powder media in 1000 ml distilled water. Mix thoroughly & heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

## Quality Control

#### Appearance

Cream to yellow coloured homogeneous free flowing powder

#### Colour and Clarity

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 Range

6.60-7.00

#### **Cultural Response**

DM 1968: Cultural characteristics observed after an incubation at 30°C for 18.

Organism	Growth
Leuconostoc dextranicum	good-luxuriant
Streptococcus cremoris ATCC 19257	good-luxuriant





Lactobacillus lactis ATCC 8000 luxuriant

Streptococcus thermophilus ATCC 14485 good-luxuriant

### Storage and Shelf Life

**Dried Media:** Store below 30°C in tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label. **Prepared Media**: 2-8° in sealable plastic bags for 2-5 days.

### **Further Reading**

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

### Disclaimer:

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