Lactic Phage Agar

M967

Lactic Phage Medium (Agar) is used for enumeration of bacteriophages active against starter cultures used in cheese manufacturing.

Composition**

Ingredients	Gms / Litre
Casein enzymic hydrolysate	10.000
Yeast extract	5.000
Beef extract	5.000
Lactose	10.000
Dipotassium phosphate	5.000
Agar	15.000
Final pH (at 25°C)	6.8±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 50 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle And Interpretation

Lactic Phage Medium (Agar) is used for enumeration of bacteriophages active against starter cultures used in cheese manufacturing.

Examination of the milk in cheese vats immediately prior to starter addition is important since the concentration of any phage present provides a good indicator of the effectiveness of rotations, the insensitivity of cultures to phage and the effectiveness of the CIP system and the level of plant hygiene.

There are many reasons why enumeration of bacteriophages may be required.(1)

• To determine the level of phage contamination of dairy processing,,plant.

• To determine the effectiveness of cleaning and sterilizing programmes.

• To determine levels of airborne phage.

• To determine if cultures are contaminated.

• To obtain information on phage/culture relationships.

• Determine the efficiency of virucidical filters.

Casein enzymic hydrolysate, Yeast extract and beef extract 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.

Quality Control

Appearance
Cream to yellow coloured homogeneous free flowing powder

Gelling
Firm, comparable with 1.5% Agar gel

Colour and Clarity of prepared medium
Light amber coloured clear to slightly opalescent gel forms in Petri plates.

Reaction
Reaction of 5.0% w/v aqueous solution at 25°C. pH : 6.8±0.2

pH

6.60-7.00

Cultural Response

M967: Cultural characteristics observed after an incubation at 35 - 37°C for 18 - 24 hours .

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

Store below 30°C in tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label.

Reference

1.Nyiendo J. Ramon J.Seidler, W.E. Preparation and Storage of High -Titer Lactic Streptococcus Bacteriophages. Applied Microbiology(1974) p-72-77

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