TM 1002 – LACTIC PHAGE BROTH

INTENDED USE

For enumeration of bacteriophages active against starter cultures employed in cheese production.

PRODUCT SUMMARY AND EXPLANATION

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. This medium is recommended for the bacteriophage detection.

COMPOSITION

Ingredients	Gms / Ltr
Casein enzymic hydrolysate	10.000
Yeast extract	5.000
Beef extract	5.000
Lactose	10.000
Dipotassium phosphate	5.000

PRINCIPLE

This medium consists of Casein enzymic hydrolysate, Yeast extract and beef extract which 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.

INSTRUCTION FOR USE

- Dissolve 35.0 grams in 1000 ml purified/distilled water.
- Heat if necessary to dissolve the medium completely.
- Mix well and dispense in tubes or flasks as desired.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow coloured homogeneous free flowing powder.
Appearance of prepared medium : Light amber coloured clear to slightly opalescent.
pH (at 25°C) : 6.8 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
Streptococcus cremoris	19257	50-100	Good- luxuriant	30°C	18-24 Hours

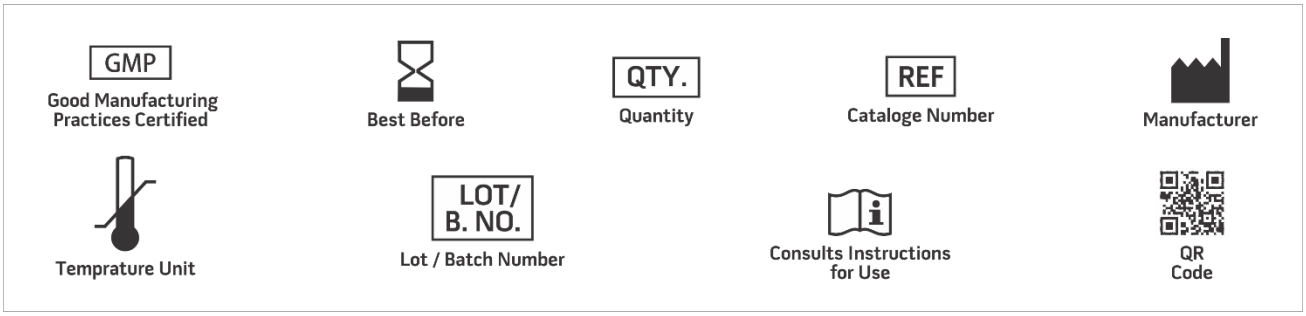
Lactobacillus lactis	8000	50-100	Luxuriant	30°C	18-24 Hours
Streptococcus thermophilus	14485	50-100	Good- luxuriant	30°C	18-24 Hours

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. American Public Health Association, Standard Methods for the Examination of Dairy Products, 1978, 14th Ed., Washington D.C.
2. Elliker,P.R. 1950. The problem of bacteriophage in the dairy industry. p.24-29. Proc. 11th Annu. Biol. Colloq., Oregon State Univ.
3. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
4. 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.
5. Wehr H. M. and Frank J. H., 2004, Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed.,APHA Inc., Washington, D.C.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.
***For Lab Use Only**
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