TM 754 – LACTIC AGAR

INTENDED USE
For enumeration and identification of lactic Streptococci and Lactobacilli by pour plate method.

PRODUCT SUMMARY AND EXPLANATION
Lactic Agar was developed by Elliker et al and recommended by APHA for cultivation of lactic bacteria to promote the colony development of Lactobacilli and lactic Streptococci. Samples are analyzed by pour plate technique. Lactic acid bacteria are fastidious in nature and hence Lactic Agar is designed to satisfy their growth requirement. Lactic acid bacteria survive at low pH, but are very sensitive to other adverse conditions. Samples to be examined for enumeration of viable lactic acid bacteria should not be frozen prior to analysis. Many of the lactic acid bacteria are easily killed or injured by freezing. For dilution of products it is best to use sterile 0.1% Peptone Water as the diluent since it protects bacteria during the dilution process.

COMPOSITION

Ingredients	Gms / Ltr
Tryptone	20.000
Yeast extract	5.000
Gelatin	2.500
Dextrose (Glucose)	5.000
Lactose	5.000
Saccharose (Sucrose)	5.000
Sodium chloride	4.000
Sodium acetate	1.500
Ascorbic acid	0.500
Agar	15.000

PRINCIPLE
This medium consists of Tryptone and yeast extract which provide amino acids, other nitrogenous nutrients, vitamin B complex etc. Dextrose, lactose and sucrose are the fermentable carbohydrates. Ascorbic acid provides vitamin C required by lactic acid bacteria. Sodium chloride maintains the osmotic equilibrium of the medium. Sodium acetate inhibits contaminating bacteria and restricts the swarming of lactic acid bacteria. Upon incubation, the colonies are examined for gram staining and catalase production. Gram-positive, catalase-negative cocci or rods are tentatively considered to be lactic acid bacteria.

INSTRUCTION FOR USE
- Dissolve 63.50 grams in 1000 ml purified/distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Cool to 45-50°C.
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Yellow coloured clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 7.0 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Lactobacillus bulgaricus	11842	50-100	Good-luxuriant	>=50%	35-37°C	18-48 Hours
Lactobacillus casei	9595	50-100	Good-luxuriant	>=50%	35-37°C	18-48 Hours
Lactobacillus lactis	8000	50-100	Good-luxuriant	>=50%	35-37°C	18-48 Hours
Streptococcus cremoris	19257	50-100	Good-luxuriant	>=50%	35-37°C	18-48 Hours
Streptococcus thermophilus	14485	50-100	Good-luxuriant	>=50%	35-37°C	18-48 Hours

PACKAGING:

In pack size of 100 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. Elliker P. R., Anderson A. W. and Hanesson G., 1956, J. Dairy Science, 39:1611.
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4. Jayne-Williams D. J., 1963, J. Appl. Bacteriol., 26:398
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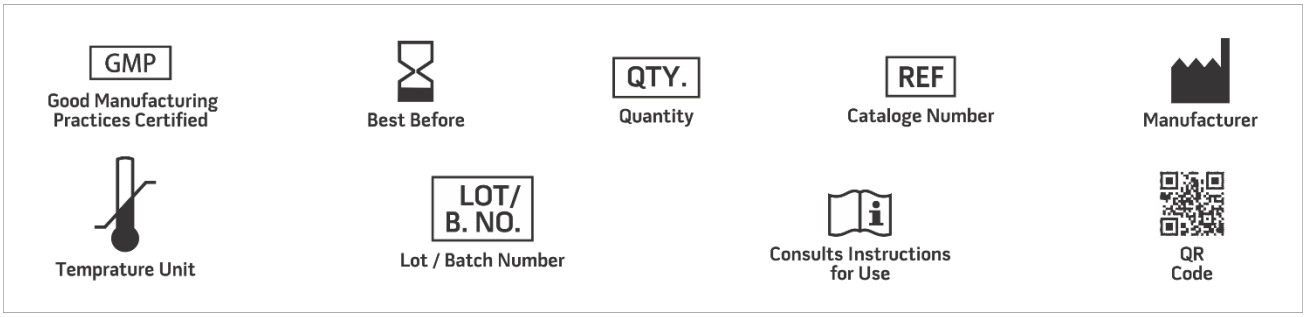
6. Salfinger Y., and Tortorello M.L. Fifth (Ed.), 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.



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

***For Lab Use Only**

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