TM 1051 – NEUTRAL RED CHALK LACTOSE AGAR

INTENDED USE
For detection of lactic Streptococci in milk and milk products.

PRODUCT SUMMARY AND EXPLANATION
Lactic Streptococci are normally present in milk and are also used as starter cultures in the production of cultured dairy products. The natural microflora of milk is inefficient, uncontrollable, and unpredictable, or is destroyed altogether by the heat treatments given to the milk. A starter culture can provide particular characteristics in a more controlled and predictable fermentation. The primary function of lactic starters is the production of lactic acid from lactose.

COMPOSITION

Ingredients	Gms / Ltr
Peptone	3.000
Beef extract	3.000
Yeast extract	3.000
Lactose	10.000
Calcium carbonate	15.000
Neutral red	0.050
Agar	15.000

PRINCIPLE
Peptone, beef extract and yeast extract provide a source of nitrogen and other growth factors. Lactose is the fermentable carbohydrate. Neutral red is the pH indicator used in this medium. As it is unable to prevent diffusion of acidic or basic byproducts throughout the agar, resulting in an overall color change of the entire medium toward the acidic or basic range, calcium carbonate is often added which acts as a non-diffusible buffer. Thus the acid produced by any colony is localized around it.

INSTRUCTION FOR USE
- Dissolve 49.05 grams in 1000 ml purified/distilled water.
- Heat just to boiling. 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 with intermittent shaking.
  Note: Due to presence of Calcium Carbonate, the prepared medium forms opalescent solution with white precipitate.

QUALITY CONTROL SPECIFICATIONS
Appearance of Powder : Light yellow to beige homogeneous free flowing powder.
Appearance of prepared medium : Pink coloured opalescent gel with white precipitate forms in Petri plates.
pH (at 25°C) : 6.8 ± 0.2

INTERPRETATION
Cultural characteristics observed after incubation.

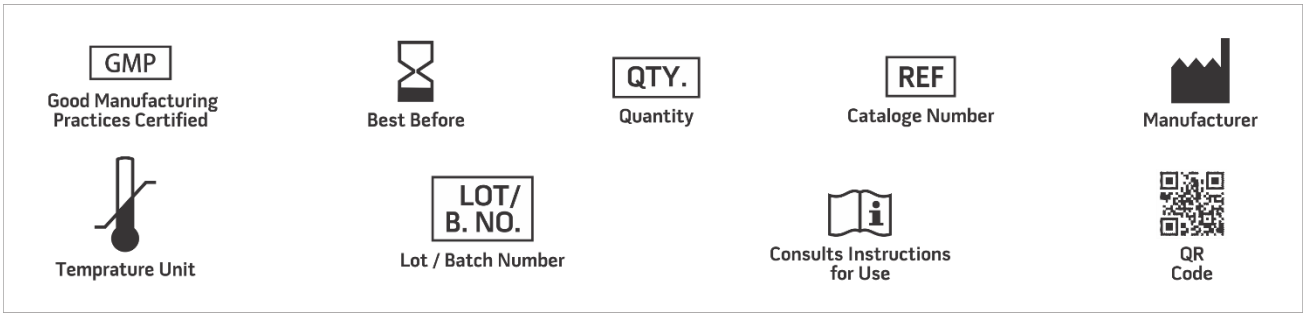
Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Streptococcus thermophilus	14485	50-100	Luxuriant	>=70%	35-37°C	24- 48 Hours

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. Reddy M. S., Vedamuthu E. R., Washam C. J. and Reinbold G. W., 1969 Appl. Microbiol., 18, 755.
2. Seppo Salminen, Atte von Wright and Arthur Ouwehand, Lactic Acid Bacteria. Microbiological and Functional aspects, 3rd Edition, Marcel and Dekker, NY. Basel.



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