TM 2346 - STREPTOCOCCUS LACTIS DIFFERENTIAL AGAR BASE

INTENDED USE

For differentiation of citrate-utilizing lactic streptococci-*Lactococcus lactis (Streptococcus lactis*) subspecies diacetylactis from citrate nonutilizing *Lactococcus lactis* (*Streptococcus lactis*) and *Lactococcus lactis* (*Streptococcus lactis*) subspecies cremoris.

PRODUCT SUMMARY AND EXPLANATION

The lactic group of the genus *Streptococcus* originally included the species *Streptococcus lactis* and *Streptococcus cremoris* and a subspecies of *S. lactis, S. lactis* subsp. *diacetylactis.* However, even in the 1970s workers were suggesting that *S. lactis* strains might be variants of *S. diacetylactis* that were unable to ferment citric acid, since citrate permease-negative strains of *S. diacetylactis* had been described. Streptococcus Lactis Differential Agar is formulated as described by Kempler and McKay and is recommended for the differentiation of citrate utilizing lactic streptococci – *Lactococcus lactis (Streptococcus lactis)* subspecies *diacetylactis* from citrate non-utilizing *Lactococcus lactis (Streptococcus lactis)* and *Lactococcus lactis (Streptococcus lactis)* subspecies *cremoris.*

COMPOSITION

Ingredients	Gms / Ltr
Nonfat (skim) milk	10.000
Peptonized milk	2.500
Dextrose	5.000
Agar	15.000

PRINCIPLE

Nonfat (skim) milk and peptonized milk in the medium provide nitrogen, vitamins and minerals necessary to support bacterial growth. Dextrose is the energy source.

INSTRUCTION FOR USE

- Dissolve 32.5 grams in 1000 ml distilled water.
- Heat to boiling with stirring to dissolve the medium completely.
- Sterilize by autoclaving at 10 psi pressure (115°C) for 12 minutes.
- Cool to 45°C and aseptically add (30 min steam-sterilized solutions) 10 ml of 10% potassium ferricyanide and 10 ml of citrate solution containing 0.25 g ferric citrate and 0.25gram sodium citrate.
- Gently mix and pour into the sterile Petri plates, dry the plates in dark for 24 hours at 30°C.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Off white to yellow homogeneous free flowing powder.
Appearance of prepared medium : Light yellow coloured opaque gel forms with white precipitate in Petri plates.
pH (at 25°C) : 6.6±0.2

INTERPRETATION

Cultural characteristics observed after an incubation with added 10% Potassium ferricyanide and citrate solution.

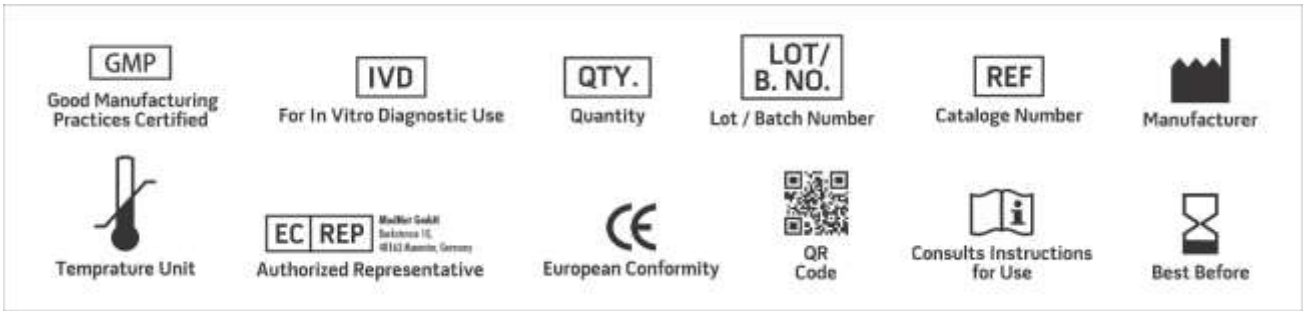
Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Streptococcus cremoris	19257	50-100	Good-luxuriant	>=50%	30°C	18-48 Hours
Streptococcus lactis	8000	50-100	Good-luxuriant	>=50%	30°C	18-48 Hours

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. Kempler G. M. and McKay L. L., 1980, Appl. Environ. Microbiol., 39:926.



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