Milk Agar

Intended Use
Milk Agar is used for the enumeration of bacteria in milk and milk products, rinse water, ice-cream etc.

Summary
The milk secreted in an uninfected cow's udder is sterile. Contamination of this milk can occur during milking, cooling and storage. Milk is an excellent medium for bacteria, yeast and moulds. Their rapid growth can cause marked deterioration, spoiling the milk for liquid consumption or manufacture into dairy products. Human infection can occur by consumption of such contaminated milk or milk products. Milk Agar is recommended for performing plate count tests on milk, rinse waters and dairy products. It is formulated as per the official medium described by Department of Health Memo. It is also recommended by EUROGLACE (EEC Ice Cream Industries) for the examination of ice cream.

Principle
Peptic digest of animal tissue and yeast extract provide essential nutrients while Milk solids are a source of casein. Proteolytic bacteria will be surrounded by a clear zone, due to the conversion of casein into soluble nitrogenous compounds.

Formula*
Ingredients	**g/L**
Peptic Digest of Animal Tissue	5.0
Yeast Extract	3.0
Milk Solids	1.0
Agar	15.0
Final pH (at 25°C)	7.2 ± 0.2

*Adjusted to suit performance parameters.

Storage and Stability
Store dehydrated medium below 30°C in tightly closed container and the prepared medium at 2°C-8°C. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

Type of Specimen
Milk and Milk products, Rinse Waters, Ice Creams etc.

Specimen Collection and Handling
Ensure that all samples are properly labelled. Follow appropriate techniques for handling samples as per established guidelines. Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure. The samples must be stored and tested within the permissible time duration. After use, contaminated materials must be sterilized by autoclaving before discarding.

Directions
1. Suspend 24.00 g of the powder in 1000 mL purified / distilled water.
2. Mix thoroughly.
3. Boil with frequent agitation to dissolve the powder completely.
4. Sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.

Quality Control
Dehydrated Appearance: Light yellow coloured, homogeneous, free flowing powder.
Prepared Appearance: Light yellow to off white coloured, slightly opalescent gel forms in petridishes.
Cultural Response: Cultural characteristics observed after an incubation of 18-48 hours at 35°C-37°C.

Organism (ATCC)	Growth
Bacillus spizizenii (6633)	Good
Pseudomonas aeruginosa Strain Boston 41501 (27853)	Good
Lactobacillus casei (9595)	Good
Staphylococcus aureus subsp. *aureus* (25923)	Good

Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

Precautions / Limitations

Due to nutritional variations, some strains may show poor growth.

Warranty

This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

Reference

1. Collee J. G., Fraser A. G., Marimon B. P., Simmons A., (Eds.), Mackie and McCartney, Practical Medical Microbiology, 1996, 14th Edition, Churchill Livingstone.
2. Dept. of Health, 1987, Memo. 139/Foods. 3. Klose J., 1968, Susswaren, 14:778.
3. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product description	Pack Size
201130540100	Dehydrated Culture Media	100 g
201130540500	Dehydrated Culture Media	500 g