Lactobacillus MRS Agar

Intended Use
Lactobacillus MRS Agar is used for isolation, enumeration and cultivation of all *Lactobacillus* species.

Summary
Lactobacillus MRS Agar is based on the formulation of deMan, Rogosa and Sharpe with slight modification. It supports luxuriant growth of Lactobacilli from oral cavity, faeces, food and dairy products.

Principle
Protease peptone and beef extract provide carbon and nitrogenous compounds. Yeast extract provides vitamin B complex while dextrose is the fermentable carbohydrate. Polysorbate 80, sodium acetate, magnesium sulphate and manganese sulphate provide growth factors. Sodium acetate and ammonium citrate inhibit Streptococci, moulds and many other microorganisms. Dipotassium phosphate functions as a buffer.

Formula*

Ingredients	**g/L**
Dextrose	20.0
Beef Extract	10.0
Proteose Peptone	10.0
Yeast Extract	5.0
Sodium Acetate	5.0
Ammonium Citrate	2.0
Dipotassium Phosphate	2.0
Polysorbate 80	1.0
Magnesium Sulphate	0.1
Manganese Sulphate	0.05
Agar	12.0
Final pH (at 25°C)	6.5 ± 0.2

*Adjusted to suit performance parameters

Storage and Stability
Store below 8°C in tightly closed container, preferably in dessicators and use freshly prepared medium. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

Type of specimen
Clinical samples - Faeces; Food and Dairy samples

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 67.15 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: Yellow coloured, homogeneous, free flowing powder.
Prepared Appearance: Yellow to light amber coloured, clear to slightly opalescent gel forms in petridishes or butt in tubes.
Cultural Response: Cultural characteristics observed after an incubation of 18-24 hours at 35°C±2°C.

Organisms (ATCC)	Growth
Lactobacillus plantarum (8014)	Good
Lactobacillus fermentum (9338)	Good
Lactobacillus rhamnosus (9595)	Good

Interpretation of Results

Refer to appropriate references and procedures for results.

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

Organisms other than Lactobacilli may grow in these media and therefore isolates must be confirmed as Lactobacilli by appropriate biochemical testing.

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. deMan J., Rogosa M. and Sharpe M., 1960, J. Appl. Bacteriol., 23:130.
2. Marshall R.T. (Ed.), 1992, Standard Methods for the Examination of Dairy Products, 16th ed., APHA, Washington, D.C.
3. Downes F. P. and Ito K., (Eds.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., APHA, Washington, D.C.
4. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product description	Pack Size
201120020100	Dehydrated Culture Media	100 g
201120020500	Dehydrated Culture Media	500 g