

Lactobacillus MRS Broth

Intended Use

Lactobacillus MRS Broth is used for the isolation, enumeration and cultivation of all *Lactobacillus* species.

Summary

Lactobacillus MRS Broth 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 cara 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 hydrogen phosphate functions as a buffer.

Formula*

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

*Adjusted to suit performance parameters.

[#]Equivalent to Beef Extract

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 55.15 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 powder with soft lumps.

Prepared Appearance: Yellow to light amber coloured, clear to slightly opalescent solution forms in tubes.

Cultural Response: Cultural characteristics observed after an incubation of 18-24 hours at 35°C±2°C.

Organisms (ATCC)

	Growth
<i>Lactobacillus plantarum</i> (8014)	Good
<i>Lactobacillus fermentum</i> (9338)	Good
<i>Lactobacillus rhamnosus</i> (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
201120040100	Dehydrated Culture Media	100 g
201120040500	Dehydrated Culture Media	500 g
201120042500	Dehydrated Culture Media	2.5 k

 Temperature Limit	 Manufacturer	 LOT	 Batch Code	 Date of Manufacture	 This way up	 Received on
REF Catalogue Number	 Consult Instructions for use	 Use-by Date	 Hygroscopic keep container tightly closed	OO Opened on		

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Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.