

## Lactobacilli MRS Broth w/o Glucose

### Intended Use

Lactobacilli MRS Broth w/o Glucose is a medium used for the isolation, enumeration and cultivation of *Lactobacillus* species.

### Summary

Suitable for use in the cultivation of Lactobacilli from dairy products and other materials. Lactobacilli MRS Broth is based on the formulations of deMan, Rogosa and Sharpe (MRS). This medium supports luxuriant growth of Lactobacilli from oral, fecal, dairy and other sources.

It was developed by de Man, Rogosa and Sharpe to provide a medium that would support the good growth of lactobacilli, but in particular for those strains which showed poor growth in existing media such as *L. brevis* and *L. fermenti*, replacing a variable product (tomato juice). The medium is apt for the growth of lactic acid bacteria, including *Lactobacillus*, *Pediococcus* and *Leuconostoc*.

### Principle

Proteose peptone and Cara beef extract supply nitrogenous and carbonaceous compounds. Yeast extract provides vitamin B complex. Polysorbate 80 supplies fatty acids required for the metabolism of Lactobacilli. Sodium acetate and ammonium citrate inhibit Streptococci, moulds and many other microorganisms. Dipotassium hydrogen phosphate is the buffering agent. Magnesium sulphate and manganese sulphate provide cations used in metabolism.

### Formula\*

Ingredients	g/L
Dipotassium Hydrogen Phosphate	2.0
Magnesium Sulphate	0.1
Manganese Sulphate	0.05
Cara Beef Extract#	10.0
Polysorbate 80	1.0
Sodium Acetate	5.0
Yeast Extract	5.0
Proteose Peptone	10.0
Ammonium Citrate	2.0
Final pH (at 25°C)	6.2 ± 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

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 35.15 g of the powder in 1000 mL purified / distilled water.
2. Mix well and dissolve by heating with frequent agitation.
3. Boil for 1 minute until complete dissolution.
4. Dispense into appropriate containers and 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:** Medium amber coloured, clear to slightly opalescent solution forms in tubes.

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

## Organisms (ATCC)

*Lactobacillus gasseri* (19992)

## Growth

Good

## Performance and Evaluation

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

1. Directions
2. Storage
3. Expiry

## 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. Sharpe M. Elisabeth, Fryer T.F. and Smith D.G. (1966) "Identification of the Lactic Acid Bacteria in Identification Method for Microbiologist Part A" (Gibbs
2. B.M. and Skinner F.A. eds.) London and New York, Academic Press.
3. Briggs M. (1953) J. dairy Res., 20: 36-40
4. Reuter G. (1985) Intern. J. Food Microbiol 2: 55-68.
5. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

## Product Presentation:

Cat No.	Product description	Pack Size
201120630500	Dehydrated Culture Media	500 g

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