



De-Man Rogosa Sharpe Broth (MRS)

RDM-MRSB-01

Principle

De-Man Rogosa Sharpe Broth is described by DeMan, Rogosa and Sharpe (1960). Media composed of proteose peptone, meat extract (equivalent to beef extract), yeast extract, dextrose, sorbitan monooleate, ammonium citrate, sodium acetate magnesium sulfate, manganese sulfate, potassium phosphate dibasic. Proteose peptone, meat extract and yeast extract provide nitrogen, carbon, vitamins and other necessary elements. Dextrose is carbohydrate source, Sorbitan monooleate, ammonium citrate, sodium acetate, magnesium sulfate and manganese sulfate are selective agents inhibits growth of other bacteria and essential for the growth of lactobacilli.

Use: Recommended for cultivation of *Lactobacillus species*.

Contents*

Ingredients

	Gram/Litre
Proteose Peptone	10.00
Meat Extract#	10.00
Yeast Extract	5.00
Dextrose	20.00
Sorbitan Monooleate	1.00
Ammonium Citrate	2.00
Sodium Acetate	5.00
Magnesium Sulfate	0.10
Manganese Sulfate	0.05
Potassium Phosphate Dibasic	2.00
pH at 25°C	6.5 ±0.2

* Formula adjusted for optimum performance and parameters

Equivalent to Beef Extract

Directions: Dissolve 55.15 grams in 1000 ml distilled water. Boil to dissolve the medium completely and sterilize by autoclaving at 15 lbs. pressure (121°C) for 15 min, cool it to 42-45 °C and inoculate test sample aseptically. Incubate in 5% CO₂ atmosphere at 33-37°C for 24-72 hrs.

Specimens types analyzed

Pharmaceutical samples, clinical and non-clinical samples, food and dairy samples etc.

Precautions to be taken

These microbial media are intended for the in-vitro use only. All the handling, experiments, storage, and discarding should be performed with the help of skilled and knowledgeable technicians and as per the established guidelines. The material should be disposed only after proper sterilization by autoclaving. Please go through the MSDS of the media to avoid any accidents or in emergency.

Performance and Evaluation

The expected performance of the medium is liable to use as per the direction on the label when stored at optimum conditions and within expiry date.

Quality Control

Appearance	Light tan colored free flowing, homogeneous powder
Reaction of 5.51% solution	6.5 ±0.2 at 25 °C
pH	6.30- 6.80
Color and clarity of ready medium	Light amber colored opalescent solution
Growth Promotion properties	Best at ≤ 100 CFU at 32-37 °C for 18-72 h
Indicative properties	Optimum at ≤ 100 CFU at 32-37 °C for 18-48 h
Negative control	Performed using sterile distilled water

Different Microbial Response

Organism	ATCC	Inoculum	Growth	Incubation
<i>Lactobacillus fermentum</i>	9338	50-100	Luxurious	5% CO ₂ atmosphere at 33-37°C for 24-72 hrs.

Storage and Shelf Life

Hygroscopic; keep container tightly closed. Store in cool dry place.

Disposal: To avoid the contamination or propagation of any hazardous microbes the used, unusable or modified preparation of this product must be disposed after autoclaving after completion of task.

Reference

1. Atlas, R. M. (2005). *Handbook of media for environmental microbiology*. CRC press.
2. DeMan, J. C., M. Rogosa, and M. E. Sharpe. (1960). *A medium for the cultivation of lactobacilli*. J. Appl. Bacteriol. 23:130.
3. *Difco Manual* (1998). 11th Edition. Difco Laboratories., Division of Becton Dickinson and Company, Sparks, Maryland, USA.

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