Chaitanya Group Of Industries

ReadyMED®
Dehydrated Cell Culture Media

Technical Data Sheet

De-Man Rogosa Sharpe Agar (MRS) RDM-MRSA-01

Principle
De-Man Roagosa Sharpe agar 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 and agar. 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 isolation and enumeration 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
Agar	12.00
pH at 25˚C	6.5 ±0.2

* Formula adjusted for optimum performance and parameters
# Equivalent to Beef Extract

Directions: Dissolve 67.50 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 distribute aseptically in petri plates. Ensure complete solidification and inoculate test sample aseptically. Incubate in 5% CO_2 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 6.75% solution	6.5 ±0.2 at 25 ˚C
pH	6.30- 6.80
Gelling	Firm comparable with 1.5% agar gel
Color and clarity of ready medium	Light amber colored opalescent gel
Growth Promotion properties	Best at ≤ 100 CFU at 32-37 ºC for 18-72 h
Indicative properties	Optimum at ≤ 100 CFU at 32-37 ºC for 18-48 h
Negative control	Performed using sterile distilled water

Different Microbial Response

Organism	ATCC	Inoculum	Growth	Incubation
Lactobacillus fermentum	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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