OXFORD LAB FINE CHEM LLP
ISO 9001-2008 Certified Company

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Oxford
Range of
Laboratory Chemicals

TECHNICAL DATA SHEET

MRS Agar (Lactobacillus MRS Agar)

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: For the isolation and enumeration of lactic acid bacteria from meat and meat products

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.

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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.

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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.**

Disclaimer:

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