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TMV 146 - LACTOBACILLUS MRS AGAR (MRS AGAR) VEG.)

INTENDED USE

For isolation and cultivation of *Lactobacillus* species.

PRODUCT SUMMARY AND EXPLANATION

These media are prepared by completely replacing animal based peptones with vegetable peptones, which makes the medium free of BSE/TSE risks. Lactobacillus MRS Veg media are the modification of Lactobacillus MRS Agar / Broth which are based on the formulation of deMan, Rogosa and Sharpe with slight modification. These media like the conventional media supports luxuriant growth of all Lactobacilli from oral cavity, dairy products, foods, faeces and other sources.

COMPOSITION

Ingredients	Gms / Ltr		
Veg peptone No. 3	10.000		
Veg extract	10.000		
Yeast extract	5.000		
Dextrose	20.000		
Polysorbate 80	1.000		
Ammonium citrate	2.000		
Sodium acetate	5.000		
Magnesium sulphate	0.100		
Manganese sulphate	0.050		
Dipotassium phosphate	2.000		
Agar	12.000		

PRINCIPLE

This medium consists of Veg Peptone No. 3 and Veg extract which supply nitrogenous and carbonaceous compounds. Yeast extract provides vitamin B complex and dextrose is the fermentable carbohydrate and energy source. Polysorbate 80 supplies fatty acids required for the metabolism of Lactobacilli. Sodium acetate and ammonium citrate inhibit Streptococci, moulds and many other microorganisms. Magnesium sulphate, Manganese sulphate provide essential ions for multiplication of Lactobacilli. Phosphate provide good buffering action in the media.

INSTRUCTION FOR USE

- Dissolve 67.15 grams in 1000 ml purified/distilled water.
- Heat to boiling to dissolve the medium completely.
- Distribute in tubes, bottles or flasks as desired and Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

QUALITY CONTROL SPECIFICATIONS



Appearance of Powder	: Yellow coloured may have slightly greenish tinge, homogeneous, free flowing
Appearance of prepared medium pH (at 25°C)	powder. : Medium amber coloured, clear to slightly opalescent gel forms in petri plates. : 6.5 ± 0.2

INTERPRETATION

Cultural characteristics observed in presence of 5% Carbon dioxide (CO₂) after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Lactobacillus Ieichmannii	7830	50-100	Luxuriant	>=70%	35-37°C	18-24 Hours
Lactobacillus fermentum	9338	50-100	Luxuriant	>=70%	35-37°C	18-24 Hours
Lactobacillus plantarum	8014	50-100	Luxuriant	>=70%	35-37°C	18-24 Hours

PACKAGING:

In pack size of 100 gm and 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 2-8°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

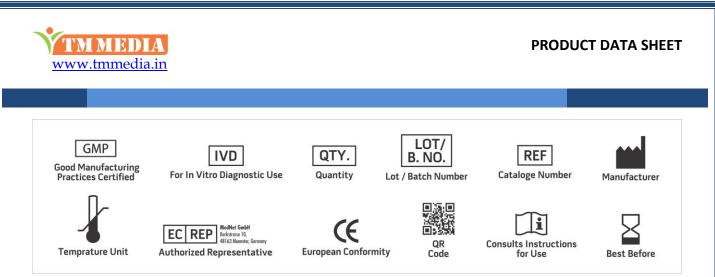
DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

- 1. deMan J., Rogosa M. and Sharpe M., 1960, J. Appl. Bacteriol., 23:130.
- 2. Standard Methods for the Examination of Dairy Products. 17th Edition, 2004 Edited by H. Michael Wehr and Joseph H.Frank.
- 3. Frances Pouch Downes and Keith Ito (Eds.), 2001, Compendium of Methods For The Microbiological Examination of Foods, 4th ed., APHA, Washington, D.C.
- 4. Sabine and Vaselekos, 1965, Nature, 206:960.
- 5. MacFaddin J., 2000, Media for Isolation-Cultivation-IdentificationMaintenance of Medical Bacteria, 3rd edition, Williams and Wilkins, Baltimore.





NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices. *For Lab Use Only

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