

# MRS Agar without Glucose



Medium used for the cultivation and enumeration of Lactobacilli.

## • CONTENTS (Liter)

Enzymatic Digest of Animal Tissue	10.0 g
Beef Extract	10.0 g
Yeast Extract	5.0 g
Ammonium Citrate	2.0 g
Sodium Acetate	5.0 g
Magnesium Sulfate	0.1 g
Manganese Sulfate	0.05 g
Dipotassium Phosphate	2.0 g
Polysorbate 80	1.0 g
Agar	13.0 g
Final pH = 6.5 ± 0.2 at 25°C	

## • PROCEDURE

Suspend 48.15 G of powder in 1 L of distilled or deionized water. If necessary, add the desired carbohydrate for selectivity. Heat to boiling until completely dissolved. Sterilize by autoclave at 121°C for 15 minutes. Cool to 45 - 50°C in water bath. Mix well. Pour into petri dishes.

## • INTERPRETATION

MRS Agar without Glucose is a medium used for the cultivation and enumeration of Lactobacilli. Enzymatic digest of animal tissue, beef extract and yeast extract provide nitrogen, carbon, amino acids, vitamins and minerals. Ammonium citrate and sodium acetate are the selective agents. Magnesium sulfate and manganese sulfate provide cations. Dipotassium phosphate is the buffering agent. Polysorbate 80 provides growth factors for growth of Lactobacilli. Agar is the solidifying agent.

## • TECHNIC

Inoculate the specimen using a sterile loop to the medium. Incubate at 36 ± 1°C for 48 - 72 hours under microaerobic condition. Refer appropriate references for recommended test procedure.

## • QUALITY CONTROL FOR USE

### Dehydrated medium

Appearance: free-flowing, homogeneous

Color: light beige

### Prepared medium

Appearance : clear to slightly opalescent

Color: light amber

Incubation conditions: 36 ± 1°C / 48 - 72 hours under microaerobic condition

Microorganism	ATCC	Inoculate CFU	Growth
<i>Lactobacillus fermentum</i>	9338	50-100	good
<i>Lactobacillus delbrueckii</i>	11842	50-100	good
<i>Lactobacillus plantarum</i>	8014	50-100	good

## • STORE

The powder is very hygroscopic. Store the powder at room temperature, in a dry environment, in its original container tightly closed and use it before the expiry date on the label. Store prepared medium at 2 - 8°C.

## • REFERENCES

1. Briggs, M. (1953). J. Dairy Res. 20:36.
2. Cox, G.P., and M. Briggs (1954). J. App. Bact. 17:18.
3. De Man, J.C., M. Rogosa, and M.E. Sharpe (1960). J. App. Bact. 23:130-135.
4. ISO/FDIS 15214 (1998) Microbiology of food and animal feeding stuffs-Horizontal method for the enumeration of mesophilic lactic acid bacteriacolonycount technique.

## • PACKAGE

Cat. No : MB-M0756 MRS Agar without Glucose	500 G
--	-------