

MRS Broth without Glucose



Medium used for the cultivation and enumeration of Lactobacilli.

• CONTENTS (Liter)

Proteose Peptone	10.0 g
Beef Extract	10.0 g
Yeast Extract	5.0 g
Sodium Acetate	5.0 g
Dipotassium Phosphate	2.0 g
Ammonium Citrate	2.0 g
Polysorbate 80	1.0 g
Magnesium Sulfate	0.1 g
Manganese Sulfate	0.05 g
Final pH = 6.5 ± 0.2 at 25°C	

• PROCEDURE

Suspend 35.15 G of powder in 1L of distilled or deionized water. Aseptically add 20.0 G of glucose. 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 tubes.

• INTERPRETATION

MRS Broth without Glucose is a medium used for the cultivation and enumeration of Lactobacilli. Proteose peptone, beef extract and yeast extract provide nitrogen, carbon, vitamins and minerals. Sodium acetate, ammonium citrate, polysorbate 80, magnesium sulfate and manganese sulfate provide growth factors for the growth of lactobacilli. Dipotassium phosphate is a buffering agent.

• TECHNIC

Inoculate the specimen with stab using a sterile needle to the medium. Shake gently for spreading microorganism. Incubate at 30 ± 2°C for 18 - 24 hours up to 72 hours under microaerophilic condition. Refer appropriate references for recommended test procedure.

• QUALITY CONTROL FOR USE

Dehydrated medium

Appearance: free-flowing, homogeneous

Color: beige

Prepared medium

Appearance: clear with no precipitate

Color: amber

Incubation conditions: 30 ± 2°C / 18 - 24 hours up to 72 hours / microaerophilic 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 or until signs of deterioration or contamination are evident. 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-M0757 MRS Broth without Glucose	500 G
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