

Medium used for the isolation and cultivation of Lactobacillus spp.

# CONTENTS (Liter)

Peptone Non-Animal Origin Yeast Extract	10.0 g 15.0 g
Glucose	20.0 g
Triammonium Citrate	2.0 g
Sodium Acetate	5.0 g
Magnesium Sulfate	0.2 g
Manganese Sulfate	0.05 g
Dipotassium Phosphate	2.0 g
Tween 80	1.0 g
Final pH = 6.2 $\pm$ 0.2 at 25°C	

#### • PROCEDURE

Suspend 55.25 G of powder in 1 L of distilled or deionized water. 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 (non-animal) is a medium used for the isolation and cultivation of Lactobacillus spp. Peptone nonanimal origin is a source of carbon, nitrogen and essential nutrients. Yeast extract provides vitamins. Glucose provides carbohydrates. Triammonium citrate and sodium acetate is the selective agents. Magnesium sulfate and manganese sulfate provide cations. Dipotassium phosphate is the buffering agent. Tween 80 provides fatty acids.

#### TECHNIC

Inoculate the specimen using a sterile needle to the medium. Incubate at  $35 \pm 2^{\circ}C$  for  $48 - 72 \pm 3$  hours under microaerobic condition. Refer appropriate references for recommended test procedure.

## • QUALITY CONTROL FOR USE

 $\label{eq:product} \begin{array}{l} \underline{\mbox{Dehydrated medium}} \\ \mbox{Appearance: free-flowing, homogeneous} \\ \mbox{Color: beige} \\ \underline{\mbox{Prepared medium}} \\ \mbox{Appearance: clear} \\ \mbox{Color: amber} \\ \mbox{Incubation conditions: } 35 \pm 2^{\circ}\mbox{C} \,/ \,48$  - 72  $\pm$  3 hours under microaerobic condition

Microorganism	ATCC	Inoculum CFU	Growth
Lactobacillus fermentum	9338	50-100	good
Lactobacillus bulgaricus	11842	50-100	good
Lactobacillus plantarum	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.

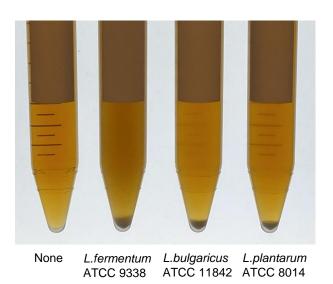
# • REFERENCES

- 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-M0623 MRS Broth (non-animal)	500 G
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## MICROBIAL CULTURE IMAGES



Incubation conditions : 35  $\pm$  2°C / 48 - 72  $\pm$  3 hours / microaerobic condition



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