

Man, Rogosa & Sharpe broth
In Vitro Use only
To be stored between 18 & 23°C

PRINCIPLE

Man, Rogosa & Sharpe (M.R.S.) broth is a selective medium used for the culture and or the enumeration of *Lactobacillus* found in dairy products and other foodstuff.

This medium is used to subculture colonies grown to the M.R.S. Agar. This medium is also ideal for the growth of fastidious strains of *Lactobacillus* such as *L. brevis* & fermentum.

This medium has Tween 80, sodium acetate & magnesium and manganese sulphates known to favour the growth *Lactobacillus*.

FORMULA

In grammes per litre of purified water

Polypeptone	10,00
Yeast extract	5,00
Meat extract	10,00
Dextrose	20,00
di potassium hydrogen phosphate	2,00
Sodium acetate	5,00
Ammonium citrate	2,00
Magnesium sulphate	0,20
Manganese sulphate	0,05
Tween 80	1,00 ml

Final pH : 6,4 ± 0,2 at 25°C

METHOD

Suspend 55,0 grammes of powder in one litre of purified water.

Homogenise until completely dissolved.

Dispatch in tubes or flasks.

Autoclave 15 minutes at 121 °C.

PROCEDURE

Introduce 1 ml of the tested product or its dilutions into the prepared tubes. Incubate at 37°C for 48 hours.

RESULTS

Examine the tubes for a micro organism growth. One can use the Most Probable Number "MPN" technique to enumerate the contamination.

LIMITS & PRECAUTIONS

This medium has a low selectivity power allowing the growth of some other strains such as *Leuconostoc* (dextranicum et mesenteroides) and *Pediococcus*.

This medium and also be used when identifying *Lactobacillus*, by carrying out: thermo-dependence tests, characterisation of *Streptobacterium* by adding Teepol (0,4%) before incubation. .

BIBLIOGRAPHY

1. De Man J.C., Rogosa M. and Sharpe M.E. 1960. An improved medium for the cultivation of Lactobacilli. J. Appl. Bact. **23**:130-135.
2. Briggs M. 1953. An improved medium for Lactobacilli. J. Dairy Res. **20**:36-40.
3. Sharpe M.E., Freyer T.F. and Smith D.G. 1966. Identification of the lactic-acid Bacteria. In : Identification Methods for Microbiologists. Part A. (Gibbs B.M. and Skinner F.A. Ed. London and New York, Academic Press. Pages 65-79.
4. Cox G.P. and Briggs. 1954. Experiments on growth media for Lactobacilli. J. Appl. Bact. **17**:18.

PACKAGING

Dehydrated medium

AEB140652 : 500 g

AEB140653 : 5kg

Ready to use medium

AEB110659 : Pack of 100 tubes 10 ml

Made by

AES Laboratoire - Combourg - France

140652£ :18/08/04-C