

MRS-IM AGAR + GLUCOSE

Medium for counting probiotic bacteria.

TYPICAL FORMULA (g/l)

Tryptone	10.0
Yeast Extract	5.0
Potassium Phosphate Bibasic	2.6
Sodium Acetate anhydrous	3.0
Ammonium Citrate Bibasic	2.0
Magnesium Sulphate Anhydrous	0.1
Manganese Sulphate Monohydrated	0.05
Dextrose	20.0
Lithium Chloride	1.0
L-Cysteine HCl	0.5
Agar	13.0

Final pH = 6.9 ± 0.2 at 25°C.

DIRECTIONS

Suspend 57.0 g of powder in 1 litre of distilled or deionized water. Add 1 mL of Tween 80 Supplement (code 80031). Heat to boiling with frequent agitation until completely dissolved. Sterilize in autoclave at 121°C for 15 minutes. Cool to 45-50°C. Aseptically add 0.5 mg of Dicloxacillin. Mix well and Dispense in final containers.

DESCRIPTION

MRS-IM AGAR+ GLUCOSE is a medium for the isolation and enumeration of *Lactobacillus acidophilus*, *Lactobacillus casei* and bifidobacteria in fermented milk products.

TECHNIQUE

Inoculate according to the pour plate technique and incubate at 36±1°C for 3 days: *Streptococcus thermophilus* and bifidobacteria will not grow on this medium under aerobic conditions. *Lactobacillus acidophilus* gives star-formed, irregular small colonies while *Lactobacillus casei* gives larger regular colonies. If we have *Lactobacillus acidophilus* in a mixture with a mesophilic culture, inoculate according to the pour plate technique and incubate at 43°C for 3 days under anaerobic conditions: all big colonies are counted as *Lactobacillus acidophilus* because an incubation temperature of 43°C suppresses the mesophilic flora which may appear as pin point colonies.

QUALITY CONTROL

Dehydrated medium

Appearance: free-flowing, homogeneous.

Colour: light beige.

Prepared medium

Appearance: slightly opalescent with no significant precipitate.

Colour: light amber.

Incubation conditions: 36±1°C / 3 days.

Microorganism	ATCC	Growth
<i>Lactobacillus casei</i>	9595	good
<i>Lactobacillus acidophilus</i>	4356	good
<i>Staphylococcus aureus</i>	25923	inhibited

STORAGE

The powder is very hygroscopic: store the powder at 10-30°C, 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 plates at 2-8°C.

REFERENCES

1. Sharpe M.E. (1960) Lab. Practice **9**: 223-227.
2. Briggs, M. (1953). J. Dairy Res. **20**:36.

PACKAGING

Code 610068 MRS-IM AGAR+ GLUCOSE (8.7 l).....	500 g
Code 620068 MRS-IM AGAR+ GLUCOSE (1.7 l).....	100 g

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