

# MRS-IM Agar + Glucose



Medium used for the isolation and cultivation of Bifidobacterium spp.

## • CONTENTS (Liter)

Tryptone	10.0 g
Yeast Extract	5.0 g
Potassium Phosphate Dibasic	2.6 g
Sodium Acetate	3.0 g
Ammonium Citrate	2.0 g
Magnesium Sulfate	0.1 g
Manganese Sulfate	0.05 g
Glucose	20.0 g
Lithium Chloride	1.0 g
L-Cysteine HCl	0.5 g
Tween 80	1.0 g
Agar	13.0 g

Final pH = 6.9 ± 0.2 at 25°C

## • PROCEDURE

Suspend 58.25 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. Aseptically add 2 vials of MRS-IM + Glucose supplement (MB-M0741). Mix well. Pour into petri dishes.

### MRS-IM + Glucose supplement

1 vial contents (each vial is sufficient for 500mL of medium)

Dicloxacillin 0.00025 g

## • INTERPRETATION

MRS-IM Agar + Glucose is a medium used for the isolation and cultivation of Bifidobacterium spp. Tryptone and yeast extract are the nitrogen and vitamin sources. Potassium phosphate dibasic is a buffering agent. Sodium acetate, ammonium citrate, lithium chloride and dicloxacillin are the selective agents. Magnesium sulfate and manganese sulfate provide ions, essential electrolytes and minerals. Glucose is a fermentable carbohydrate. L-cysteine HCl acts as a reducing agent to maintain the anaerobic condition required for Bifidobacterium spp. Tween 80 provides fatty acids. Agar is the solidifying agent.

## • TECHNIC

Inoculate the specimen using a sterile loop to the medium. Incubate at 36 ± 1°C for 3 days. Refer appropriate references for recommended test procedure.

## • QUALITY CONTROL FOR USE

### Dehydrated medium

Appearance: free-flowing, homogeneous

Color: light beige

### Prepared medium

Appearance : slightly opalescent

Color: light amber

Incubation conditions: 36 ± 1°C / 3 days

Microorganism	ATCC	Inoculum CFU	Growth
<i>Bifidobacterium lactis</i>	KCTC 5854	50-100	good
<i>Bifidobacterium longum</i>	15707	50-100	good
<i>Lactobacillus acidophilus</i>	4356	≥10 <sup>3</sup>	inhibited
<i>Lactobacillus bulgaricus</i>	11842	≥10 <sup>3</sup>	inhibited

**• 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. Mary Briggs, (1953). Journal of Dairy Research 20, 36 - 40.
2. T. Sozzi, P. Brigidi, O Mignot, D Matteuzzi (1990). Use of dicloxacillin for the isolation and counting of Bifidobacteria from dairy products. Lait 70, 357 - 361.

**• PACKAGE**

Cat. No : MB-M1068 MRS-IM Agar + Glucose	500 G
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