



PRODUCT DATA SHEET

LACTOBACILLUS MRS BROTH (MRS BROTH)

TM 147

For the cultivation of *Lactobacilli* spp. from oral, fecal, dairy, and other sources

Composition

Ingredients	Gms/Ltr.
Dextrose	20.00
Proteose peptone	10.00
Beef extract	10.00
Yeast extract	5.00
Sodium acetate	5.00
Disodium phosphate	2.00
Ammonium citrate	2.00
Tween 80	1.00
Magnesium sulphate	0.10
Manganese sulphate	0.05

* Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°C and protect from direct Sunlight.

Instructions for Use

Dissolve 55.15gms of the medium in 1000ml of purified water. Gently heat to boiling with gentle swirling and dissolve the medium completely. Sterilize by autoclaving at 15 psi (121°C) for 15 minutes. Cool at room temperature prior to dispense.

Appearance: Medium amber colour, clear solution

pH (at 25°C): 6.5 ± 0.2

Principle

LACTOBACILLUS MRS BROTH is used for the cultivation of *Lactobacilli* spp. from oral, fecal, dairy, and other sources. Medium contains Proteose peptone, Beef extract, and Yeast extract are the carbon, nitrogen and vitamin sources used to satisfy general growth requirements in Lactobacilli MRS Broth or medium. Dextrose acts as the fermentable carbohydrate. Sodium acetate acts as an inhibitory agent. Ammonium Citrate acts as selective agents as well as energy sources. Disodium phosphate is the buffering agent. Magnesium sulphate and Manganese sulphate provide cations used in metabolism. Tween 80 is a surfactant, facilitating uptake of nutrients by lactobacilli. Collect the diluted samples and prepare the volumes as required according to specifications, for the expected results. After incubation, enumerate all the colonies that have appeared onto the surface of the broth. Growth of *Lactobacillus* species appears turbid. Growth can be sub cultured onto appropriate media for use in additional procedures.

Interpretation

Cultural characteristics observed after inoculating (50 - 100CFU), on incubation at 35 ± 2°C for 18 - 48 hours or for longer incubation period with 5% CO₂.

Microorganisms	ATCC	Inoculum (CFU/ml)	Recovery rate (%)	Growth
<i>Lactobacillus casei</i>	9595	50 - 100	≥50%	Luxuriant
<i>Lactobacillus plantarum</i>	8014	50 - 100	≥50%	Luxuriant



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<i>Lactobacillus fermentum</i>	9338	50 - 100	>=50%	Luxuriant
<i>Lactobacillus leichmannii</i>	7830	50 - 100	>=50%	Luxuriant
<i>Escherichia coli</i>	25922	50 - 100	> 10%	Inhibited

References

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