



Dehydrated Culture Media
Instructions for Use

LACTOBACILLI MRS BROTH (M172) Dehydrated Culture Media

USE: Lactobacilli MRS Broth is recommended for the use in the isolation, enumeration, and cultivation of *Lactobacillus* species.

DESCRIPTION: Lactobacilli MRS Agar and Lactobacilli MRS Broth are based on the formulations of deMan, Rogosa, and Sharpe.¹ These media were shown by the authors to support luxuriant growth of all lactobacilli from oral, fecal, dairy, and other sources.

Lactobacilli MRS Broth contain peptone and dextrose. These ingredients supply nitrogen, carbon, and other elements necessary for growth. Polysorbate 80, acetate, magnesium, and manganese provide growth factors for culturing a variety of lactobacilli. The above ingredients may inhibit the growth of some organisms other than lactobacilli.

FORMULA:

Proteose Peptone No. 3	10.0 g/L
Beef Extract.....	10.0 g/L
Yeast Extract.....	5.0 g/L
Dextrose.....	20.0 g/L
Polysorbate 80	1.0 g/L
Ammonium Citrate.....	2.0 g/L
Sodium Acetate.....	5.0 g/L
Magnesium Sulfate.....	0.1 g/L
Manganese Sulfate	0.05 g/L
Dipotassium Phosphate.....	2.0 g/L
Total.....	55 g/L

Note: Medium may be adjusted and/or supplemented as required to meet performance criteria.

Final pH: 6.5 ± 0.2 at 25°C

PHYSICAL APPEARANCE:

Dehydrated Appearance – Light tan, free-flowing, homogenous.

Prepared Appearance – Medium amber, very slightly to slightly opalescent.

PROCEDURE: Mix 55 grams of the medium in one liter of purified water. Autoclave at 121°C for 15 minutes.

EXPECTED RESULTS: Cultural response after 18-24 hours at 35°C.

Microorganism	CFU	Growth
<i>L. delbrueckii</i> subsp. <i>lactis</i> ATCC™ 7830	10 ² -10 ³	+
<i>L. fermentum</i> ATCC™ 9338	10 ² -10 ³	+

STORAGE: Store the product at 2-30°C protected from moisture and light for up to the expiration date.

LIMITATIONS: For laboratory use only. The dehydrated medium should be discarded if there are any changes in the color or if it is no longer free flowing.

SIZES AVAILABLE: 500 g, 2 kg, 10 kg

PACKAGING: Additional configurations are available upon request.

REFERENCES:

1. deMan, Rogosa, and Sharpe. 1960. J. Appl. Bacteriol. 23:130.
2. Murray, Baron, Jorgensen, Landry, and Pfaller (ed.). 2007. Manual of clinical microbiology, 9th ed. American Society for Microbiology, Washington, D.C.
3. Downes and Ito (ed.). 2001. Compendium of methods for the microbiological examination of foods, 4th ed. American Public Health Association, Washington, D.C.

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