

LACTOBACILLIMRS AGAR (M388)

Dehydrated Culture Media

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

DESCRIPTION: Lactobacilli MRS Agar is 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 contains 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
Agar	15.0 g/L
Total	70 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, homogeneous.

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

PROCEDURE:

1. Mix 70 grams of the medium in one liter of purified water. Mix thoroughly.
2. Heat with frequent agitation and boil for 1 minute to completely dissolve the powder.
3. Autoclave at 121°C for 15 minutes.
4. Test samples of the finished product for performance using stable, typical control cultures.

EXPECTED RESULTS: Cultural response after 18-72 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	+
<i>L. johnsonii</i> ATCC™ 11506	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. dMan, 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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