Rogosa Agar (LBS Agar)

Catalogue No. AS-1399

1. Product Identification

Product name	Rogosa Agar (LBS Agar)
Catalogue No.	AS-1399
Product type	Dehydrated microbiological culture medium
Manufacturer	Ausamics Pty Ltd, Epping, VIC, Australia
Pack size	500 g

2. Intended Use

Selective isolation, cultivation and enumeration of lactobacilli and related lactic acid bacteria from foods, dairy products, probiotic preparations, and oral and faecal samples.

For laboratory microbiological testing, quality control and research use only. Not intended for direct use in food, human or veterinary therapeutic applications, diagnosis, or consumption.

3. Mode of Action

Sodium acetate and added acetic acid form an acetate buffer at pH 5.4. Undissociated acetic acid inhibits most accompanying flora, and ammonium citrate adds further inhibition. Acid-tolerant lactobacilli grow using glucose, peptones, yeast extract, Tween 80 and metal cofactors.

4. Formulation (g/L)

Ingredient	g/L
Casein Peptone (Tryptone)	10.0
Yeast Extract	5.0
D-Glucose	20.0
Polysorbate 80 (Tween 80)	1.0
Potassium Dihydrogen Phosphate	6.0
Sodium Acetate	15.0
Ammonium Citrate	2.0
Magnesium Sulfate·$7H_2O$	0.575
Manganese Sulfate·$4H_2O$	0.12
Iron(II) Sulfate·$7H_2O$	0.034
Agar	15.0
Total	74.73

Formula may be adjusted to meet performance standards.

5. Physical Specifications

Powder appearance	Cream to light yellow, homogeneous, free-flowing
Prepared medium	Light yellow to amber, clear to slightly opalescent gel
Gel	Firm, comparable to 1.5% agar
Final pH (25 °C)	5.4 ± 0.2 (after acetic acid addition)

6. Preparation

1. Suspend 74.73 g of powder in 1 L of purified water.
2. Heat with frequent stirring until completely dissolved.
3. Add 1.32 mL of glacial acetic acid and mix thoroughly.
4. Boil for 2–3 minutes. Do not autoclave.
5. Cool to 45–50 °C and pour into sterile Petri dishes.
6. Check the pH of a cooled sample: 5.4 ± 0.2 at 25 °C.

Caution: glacial acetic acid is corrosive and flammable. Handle in a fume hood with gloves and eye protection.

7. Quality Control (Performance)

Incubation: 35–37 °C, 48–72 h, anaerobic or 5–10% CO_2.

Organism	Strain	Inoculum (CFU)	Expected result
Lacticaseibacillus rhamnosus	ATCC 9595	≤100	Good growth, white–cream colonies
Limosilactobacillus fermentum	ATCC 9338	≤100	Good growth
Lactiplantibacillus plantarum	ATCC 8014	≤100	Good growth
Escherichia coli	ATCC 25922	≥10^4	Inhibited
Staphylococcus aureus	ATCC 25923	≥10^4	Inhibited

8. Storage & Shelf Life

Dehydrated medium: store at 2–8 °C, dry, tightly closed and protected from light. The powder is hygroscopic. Use before the expiry date on the label. Prepared plates: store at 2–8 °C protected from light and use promptly.

9. Limitations

Some pediococci, leuconostocs, enterococci, bifidobacteria and yeasts may grow. Some lactobacilli may grow poorly. Confirm presumptive isolates with appropriate identification methods.

10. Literature / References

7. Rogosa M., Mitchell J.A., Wiseman R.F. (1951). A selective medium for the isolation and enumeration of oral and fecal lactobacilli. J. Bacteriol. 62:132–133.
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9. Salfinger Y., Tortorello M.L. (eds) (2015). Compendium of Methods for the Microbiological Examination of Foods, 5th ed. APHA.
10. Zheng J. et al. (2020). A taxonomic note on the genus Lactobacillus. Int. J. Syst. Evol. Microbiol. 70:2782–2858.

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