

LB Broth (Lennox) — Technical Data Sheet

Catalogue Number: AS-1269

Product Identification

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| Product Name | LB Broth (Lennox) |
| Catalogue Number | AS-1269 |
| HS Code | 3821.00.00 |
| Medium Type | Dehydrated non-selective liquid culture medium |
| Physical Form | Fine homogeneous powder |
| Colour (powder) | Light beige to cream |
| Physical state (prepared) | Clear to slightly turbid liquid |
| Original Reference | Lennox (1955) — Virology 1:190 |

Composition (per litre of prepared medium)

| Component | CAS Number | Function | Amount |
|--|------------|--|--------|
| Tryptone (Pancreatic Digest of Casein) | 73049-73-7 | Nitrogen, carbon, amino acids, peptides | 10.0 g |
| Yeast Extract | 8013-01-2 | B-vitamins, growth factors, nucleotides | 5.0 g |
| Sodium Chloride | 7647-14-5 | Osmotic balance (reduced-salt formulation) | 5.0 g |

Total per litre: 20.0 g | Final pH: 7.0 ± 0.2 at 25 °C

Physical & Chemical Specifications

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| Appearance (powder) | Light beige to cream fine homogeneous powder |
| Appearance (prepared) | Clear to slightly turbid, light amber liquid |



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| pH (prepared medium, 25 °C) | 7.0 ± 0.2 |
| Loss on Drying (moisture) | ≤ 5.0% |
| Solubility | Readily and completely soluble in purified water |
| NaCl concentration | 5.0 g/L (Lennox formulation — half of Miller formulation) |
| Osmolarity (approximate) | ~170 mOsm/kg (vs ~310 mOsm/kg for Miller) |
| Selectivity | Non-selective — supports broad range of bacteria |

Preparation Instructions

1. Dissolve 20.0 g of dehydrated medium in 1 litre of demineralised or purified water.
2. Stir or heat gently with agitation until fully dissolved.
3. Verify pH and adjust to 7.0 ± 0.2 if required (1 M NaOH or 1 M HCl).
4. Sterilise by autoclaving at 121 °C for 15 minutes.
5. Cool to room temperature before use or inoculation.
6. Add filter-sterilised antibiotics or supplements aseptically as required.

For LB Agar plates: Add 15.0 g/L agar before autoclaving. Cool to 45–50 °C before adding antibiotics. Pour into sterile Petri dishes.

Performance Characteristics

| Organism | ATCC No. | Expected Result | Incubation |
|------------------------|----------|------------------------------------|------------------------|
| Escherichia coli K-12 | 23716 | Good growth — turbid broth | 37 °C, 18–24 h |
| E. coli DH5α | N/A | Good growth — suitable for cloning | 37 °C, 12–16 h |
| E. coli BL21(DE3) | N/A | Good growth — protein expression | 37 °C, 3–4 h to OD 0.6 |
| Salmonella typhimurium | 14028 | Good growth | 37 °C, 18–24 h |

Storage & Stability

Dehydrated powder 15–30 °C in tightly closed container



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| Protect from | Moisture, light, and extreme temperatures |
| Prepared broth | 2–8 °C, use within 1 week |
| Shelf life (dehydrated) | As per labelled expiry date |
| Do not use if | Precipitation, turbidity, colour change, or contamination is observed |

Quality Standards & References

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|-------------------------------|--|
| Original Reference | Lennox E.S. (1955) Virology 1:190 |
| Standard References | Sambrook & Russell — Molecular Cloning; Current Protocols in Molecular Biology |
| ATCC Recommended | ATCC Medium 1065 |
| Batch Release Testing | pH, appearance, moisture, performance vs E. coli ATCC 23716 |
| Country of Manufacture | Australia |

Disclaimer

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