AuSaMicS™ Life Science

Technical Data Sheet
AS-1326
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Phenol Red Broth Base

Catalogue No.: AS-1326 | Version: 1.0 | Issue Date: 2025-01-01

Product Specifications

Product Name	Phenol Red Broth Base
Catalogue Number	AS-1326
Format	Dehydrated powder medium (base — no carbohydrate included)
Appearance	Light pink to salmon homogeneous powder
Final pH (25 °C)	7.4 ± 0.2 (red/orange colour after reconstitution)
Indicator	Phenol red — red (alkaline/neutral) / yellow (acid)
Gas Detection	Via inverted Durham tube

Composition — Base (per litre)

Ingredient	g/L	Function
Proteose Peptone / Pancreatic Digest of Casein	10.0	Nitrogen source (low level)
Beef Extract	1.0	Growth factors
Sodium Chloride (NaCl)	5.0	Osmotic balance
Phenol Red	0.025	pH indicator (pKa ~7.4)

Preparation Instructions

1. Dissolve 16.025 g base powder + 5–10 g chosen carbohydrate in 1 litre of purified water. Mix well.
2. Dispense 4–5 mL into small tubes, each containing an inverted Durham tube (for gas detection).
3. Autoclave at 121 °C for 15 minutes (heat-stable sugars). For heat-labile sugars (inositol, adonitol): autoclave base separately at 118 °C; add filter-sterilised carbohydrate aseptically after cooling.
4. Allow to cool. Ensure Durham tubes are free of gas bubbles before inoculation.

Incubation Conditions

Standard	35–37 °C for 18–48 hours

Slow reactions	Up to 7–30 days (e.g., inositol, adonitol fermentation)

Quality Control

Test Organism	Carbohydrate	Expected Result
Escherichia coli ATCC 25922	Glucose	Yellow + gas (A/G)
Salmonella Typhimurium ATCC 14028	Mannitol	Yellow, no gas (A)
Pseudomonas aeruginosa ATCC 27853	Glucose	No change / alkaline (red)