

Antibiotic Assay Medium B BP

Intended Use

Antibiotic Assay Medium B is used for microbiological assay of Colistimethate sodium sulphate using *Bordetella bronchiseptica* and *Escherichia coli* in accordance with British Pharmacopoeia.

Summary

Antibiotic Assay Medium No. 35 is employed widely as base agar for agar diffusion assay of Bleomycin using *Mycobacterium smegmatis*. This medium is formulated in accordance to CFR (the Code of Federal Regulations).

Principle

Tryptone and soya peptone together provides nitrogenous and carbonaceous compounds, long chain amino acids and other essential nutrients for the growth of test organisms. Glucose monohydrate provides fermentable source of carbon, and enhances the growth of test organism. Phosphate in the medium enhances buffering action and sodium chloride maintains osmotic equilibrium. Test organisms are inoculated in freshly prepared plates of sterile seed agar cooled to 40-45°C and spread evenly over the surface of solidified base agar.

Formula*

| Ingredients | g/L |
|--------------------------------|-----------|
| Tryptone | 17.0 |
| Soya peptone | 3.0 |
| Sodium chloride | 5.0 |
| Dipotassium hydrogen phosphate | 2.5 |
| Glucose monohydrate | 2.5 |
| Agar | 15.0 |
| Final pH (at 25°C) | 7.3 ± 0.1 |

*Adjusted to suit performance parameters

Storage and Stability

Store dehydrated medium below 30°C in tightly closed container and the prepared medium at 2°C-8°C. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

Specimen Collection and Handling

Ensure that all samples are properly labelled.

Follow appropriate techniques for handling samples as per established guidelines.

Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure. The samples must be stored and tested within the permissible time duration.

After use, contaminated materials must be sterilized by autoclaving before discarding.

Directions

1. Suspend 44.77 g (the equivalent weight of dehydrated medium per litre) of the powder in 1000 mL distilled water with 10 mL polysorbate 80.
2. Mix thoroughly.
3. Heat to boiling to dissolve the powder completely.
4. Sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.
5. Cool to 45°C-50°C. Pour into sterile petri plates as desired.
6. Adjust the pH of the medium, using freshly prepared buffer solution as recommended by the British Pharmacopoeia for the antibiotic assayed.

Quality Control

Dehydrated Appearance: Cream to yellow coloured, homogeneous, free flowing powder.

Prepared Appearance: Light amber coloured, clear to slightly opalescent gel forms in petriplates.

Cultural Response: Cultural characteristics observed after an incubation at 35°C-37°C for 18-24 hours.

| Organism (ATCC) | Growth | Antibiotics Assayed by Cylinder Plate Method |
|---|---------------|---|
| <i>Bordetella bronchiseptica</i> (4617) | Good | Colistimethate sodium |
| <i>Escherichia coli</i> (10536) | Good | Colistimethate sodium |

Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

Warranty

This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

Reference

1. British Pharmacopoeia, 2016, British Pharmacopoeia Commission
2. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
3. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
4. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

| Cat No. | Product description | Pack Size |
|----------------|----------------------------|------------------|
| 201010910500 | Dehydrated Culture Media | 500 g |

Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.
