

**Also known as**

ANTIBIOTIC MEDIUM 10. MEDIUM 10

**Specification**

Antibiotic Medium B is used in the microbiological assays of Colistimethate and Polymyxin by the Agar Diffusion method.

**Formula \* in g/L**

|                                |      |
|--------------------------------|------|
| Casein Pancreatic Digest ..... | 17,0 |
| Soyabean meal Digest.....      | 3,0  |
| Sodium chloride .....          | 5,0  |
| Dipotassium phosphate.....     | 2,5  |
| Dextrose.....                  | 2,5  |
| Agar.....                      | 15,0 |

Final pH 7,3 ±0,1 at 25 °C

\* Adjusted and /or supplemented as required to meet performance criteria

**Directions**

Add 45 g of powder to 1 L of distilled water. Once dissolved, add 10 mL of Polysorbate 80 (Art. No. DSHB3131). Bring to the boil and dispense into suitable containers. Sterilize in the autoclave at 121°C for 15 minutes.

**Description**

 Antibiotic Medium B is recommended by the European Pharmacopoeia and the USP for determining antibiotic potency by the microbiological assay techniques, specifically for Colistimethate and Polymyxin, in a single layer or double layer. For these assays seed cultures ATCC 4617 *Bordetella bronchiseptica* and ATCC 10536 *Escherichia coli* are recommended.

**Technique**

The diffusion method for the assay of antibiotics is carried out in accordance with the methodology in the current pharmacopoeias of each country. Scharlau Microbiology's Antibiotic Medium B can be used equally with impregnated paper discs, penicylinders and cut wells as the consistency of the gel is specifically adjusted to suit all of these methodologies.

**Quality control**
**Incubation temperature:** 35 °C±2,0

**Incubation time:** 24 h

**Inoculum:** Practical range 50-100 CFU (Productivity). Spiral Plate Method.

| Microorganism                               | Growth              | Remarks |
|---|---------------------|---------|
| <i>Escherichia coli</i> ATCC® 10536         | Productivity > 0.70 | -       |
| <i>Bordetella bronchiseptica</i> ATCC® 4617 | Productivity > 0.70 | -       |
| Polymyxin B test                            | Conform USP         | -       |

**References**

- ARRET, B.D., P.JOHNSON & A. KIRSCHBAUM (1971) Outline details for Microbiological Assays of Antibiotics: Second revision. J. Pharm. Sci. 60(11):1689-1694
- EUROPEAN PHARMACOPOEIA 10.0 (2020) 7th ed. §. 2.7.2 Microbiological Assay of Antibiotics. EDMH. Council of Europe. Strasbourg.
- ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.
- SANCHO, J., J.GUINEA & R. PARÉS. (1980) Microbiología Analítica Básica. Ed. JIMS. Barcelona.
- U.S. PHARMACOPOEIA 31 /NATIONAL FORMULARY 26 (2008) Biological Tests and Assays. {81} Antibiotic Microbial Assays. USP Convention Ltd. Rockville, MD.
- USP 33 - NF 28 (2011) <81> Antibiotics - Microbial Assays. USP Corp. Inc. Rockville. MD. USA.

**Storage**

For laboratory use only. Keep tightly closed, away from bright light, in a cool dry place (+4 °C to 30 °C).