

Antibiotic Medium B (Eur. Pharm.)

Art. No. 01-016

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.....	17,00
Soybean meal Digest.....	3,00
Sodium chloride.....	5,00
Dextrose.....	2,50
Dipotassium phosphate.....	2,50
Agar.....	15,00
Final pH 7.3 ± 0.1 at 25°C	

Reconstitution

Add 45 g of powder to 1 L of distilled water. Once dissolved, add 10 mL of Polysorbate 80 (Art. No. TW0080). 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.

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 7.0 (2011) 7th ed. §. 2.7.2 Microbiological Assay of Antibiotics. EDMH. Council of Europe. Strasbourg.
- ISO/TS 11133-1: 2009. Microbiology of food and animal feeding stuffs.- Guidelines on preparation and production of culture media. Part 1: General guidelines on quality assurance for the preparation of culture media in the laboratory.
- ISO/TS 11133-2: 2003 Corr. 2004. Microbiology of food and animal feeding stuffs.- Guidelines on preparation and production of culture media. Part 2: Practical guidelines on 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 and <60 % RH).

Quality control

Incubation temperature: 35°C ± 2,0

Incubation time: 24 h

Inoculum: 10-100 CFU. Spiral Plate Method (according to standard ISO/TR 11133-1:2000 and ISO/TS 11133-2:2003)

Microorganism	Growth	Remarks
<i>Escherichia coli</i> ATCC 10536	Productivity > 0.70	-
<i>Bordetella bronchiseptica</i> ATCC 4617	Productivity > 0.70	-