

Also known as

Neomycin Assay Agar; Erythromycin Assay Agar; Medium C; Medium 11; Medium J; AM11 ; Antibiotic Medium 11

Specification

Antibiotic Medium A at pH 7,9 is used in microbiological antibiotic assays using agar diffusion technique.

Formula * in g/L

Peptone.....	6,00
Casein peptone.....	4,00
Yeast extract.....	3,00
Meat extract.....	1,50
Dextrose.....	1,00
Agar.....	15,00

Final pH 7,9 ±0,1 at 25 °C

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

Directions

Suspend 30,5 g of powder in 1 L of distilled water and bring to the boil stirring constantly. Distribute in suitable containers and sterilize in the autoclave at 121°C for 15 minutes.

Description

The Antibiotic Medium A at pH 7,9 is used as seed layer or as the base layer in the assay of erythromycin, gentamicin, kanamycin, neomycin, netilmycin, paromomycin, sisomicin, streptomycin, tylosin and vancomycin.

Technique

The agar diffusion technique for antibiotic assays is performed according to the methodology recommended in the pharmacopoeia used in each country. Antibiotic Medium A à pH 7,9 is suitable for use with paper discs, punched-holes or cylinder methodology as its Force du Gel is specially adjusted for all these techniques.

Quality control

Incubation temperature: 36 °C ± 1,0 **Incubation time:** 21 ± 3h

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

Microorganism	Growth	Remarks
<i>Bacillus subtilis</i> ATCC® 6633	Productivity > 0.70	-
<i>Staphylococcus aureus</i> ATCC® 6538P	Productivity > 0.70	-
<i>Staphylococcus epidermidis</i> ATCC® 12228	Productivity > 0.70	-
<i>Bacillus pumillus</i> ATCC® 14884	Productivity > 0.70	-

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 11.0 (2023) 11th 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.

Storage

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