OXFORD LAB FINE CHEM LLP
ISO 9001-2008 Certified Company

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Oxford
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TECHNICAL DATA SHEET

Antibiotic Assay Medium No.9 (Polymyxin Base Agar)

Principle

The media is composed according to the USP, recommended as antibiotic assay medium. It is composed of pancreatic digest of casein, papaic digest of soybean, sodium chloride, dibasic potassium phosphate, dextrose and agar. Peptone, pancreatic digest of casein and papaic digest of soybean provide nitrogen, carbon and essential nutrients. Sodium chloride maintains osmatic balance. Dibasic potassium phosphate acts as buffering agent. Dextrose serves as energy source. This medium is used as base layer for plate assay of antibiotics.

Use: As a base agar for assaying the products containing Polymyxin-B.

Contents*

Ingredients	Gram/Liter
Pancreatic Digest of Casein	17.000
Papaic Digest of Soybean	3.000
Sodium Chloride	5.000
Dibasic Potassium Phosphate	2.500
Dextrose	2.500
Agar	20.000
pH at 25˚C	7.2 ±0.1

*** Formula adjusted for optimum performance and parameters**

Directions: Dissolve 50.0 grams in 1000 ml distilled water. Boil to dissolve the medium completely and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 min, cool it to 42-45 °C, and distribute aseptically (21 ml) in petri plates to form a base layer. Ensure complete solidification and add 4 ml of seed layer of inoculum.

Precautions to be taken

All the handling, experiments, storage, and discarding should be performed with the help of skilled and knowledgeable technicians and as per the established guidelines. The material should be disposed only after proper sterilization by autoclaving. Please go through the MSDS of the media to avoid any accidents or in emergency.

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Performance and Evaluation

The expected performance of the medium is liable to use as per the direction on the label when stored at optimum conditions and within expiry date.

Quality Control

Appearance	**Beige colored free flowing, homogeneous powder**
Reaction of 5.0% solution	**7.2 ±0.1 at 25 ˚C**
pH	**7.10- 7.30**
Gelling	**Firm comparable with 2% agar gel**
Color and clarity of ready medium	**Light amber colored opalescent gel**
Growth Promotion properties	**Best at ≤ 100 CFU at 32-37 ºC for 18-48 h**
Indicative properties	**Optimum at ≤ 100 CFU at 32-37 ºC for 18-48 h**
Negative control	**Performed using sterile distilled water**

Different Microbial Response

Cultural characteristics observed after incubation at 35-37 ºC for 18-24 hours.

Organism	ATCC	Inoculum	Growth	Recovery	Antibiotic assayed
Pseudomonas aeruginosa	**27853**	**50-100**	**Luxuriant**	**≥ 60%**	**Carbenicillin**
Escherichia coli	**8739**	**50-100**	**Luxuriant**	**≥ 60%**	**Polymyxin B**

Storage and Shelf Life: The product is highly hygroscopic; keep the container tightly closed at all times and store it properly as per the conditions mentioned on the label. The declared expiry is valid only when stored as per the conditions mentioned on the label. Note: Sterilize media immediately after reconstitution.

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Disposal: To avoid the contamination or propagation of any hazardous microbes the used, unusable or modified preparation of this product must be disposed after autoclaving after completion of task.

Reference

1. **Atlas, R. M. (2005). *Handbook of media for environmental microbiology*. CRC press.**
2. ***Difco Manual* (1998). 11th Edition. Difco Laboratories., Division of Becton Dickinson and Company, Sparks, Maryland, USA.**
3. ***The United States Pharmacopoeia*, (2014), The United States Pharmacopeial Convention. 12601 Twinbrook Parkway, Rockvukke, MD 20852.**

Disclaimer:

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