Technical Information

Antibiotic MiVeg Assay Medium No.9 (Polymyxin MiVeg Base Agar)

Product Code : VM1147

Application:- Antibiotic MiVeg Assay Medium No.9 (Polymyxin MiVeg Base Agar) is used as a base layer medium for assaying the products containing Polymyxin B.

Composition

Ingredients	Gms / Litre
MiVeg hydrolysate	17.00
Papaic digest of soyabean meal	3.000
Sodium chloride	5.000
Dipotassium phosphate	2.500
Dextrose	2.500
Agar	20.000
Final pH (at 25°C)	7.2 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Antibiotic MiVeg Assay Medium No.9 (Polymyxin MiVeg Base Agar) is prepared by vegetable peptones instead of animal peptones, which makes the medium BSE-TSE risks free. This serves the same purpose of Antibiotic Assay Medium No.9 (Polymyxin Base Agar) widely recommended for assay of Polymyxin B, Colistimethate sodium and Colistin using *Bordetella bronchiseptica* as test organism. Carbenicillin assay is also performed using this medium with *Pseudomonas aeruginosa* .The medium is numerically identical with the name assigned by Groove and Randall (1).

MiVeg hydrolysate and Papaic digest of soyabean meal provides essential nutrients. Dextrose stimulates the growth by providing carbon and energy. Phosphates in the medium enhance buffering action and sodium chloride maintains osmotic equilibrium in the medium. Higher agar concentration provides control over the diffusion activity of polymixin B antibiotics and provides solid substratum to support the seed agar layer.

Prepare fresh Base Agar for the antibiotic assay on the same day as the test. For the cylinder method, a base layer of 21 ml is required. Once the base medium has solidified, seed layer inoculated with the standardized culture can be overlaid. Even distribution of the layer is important.

Methodology

Suspend 50 grams of powder media in 1000 ml purified/distilled water. Mix thoroughly. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.
Suggestion : *Recommended for the microbiological assay of Carbenicillin, Colistimethate sodium colistin and Polymyxin B.*

Quality Control

Physical Appearance
Cream to yellow homogeneous free flowing powder.

Gelling
Firm,comparable with 2.0% Agar gel.

Colour and Clarity of prepared medium
Light amber coloured clear to slightly opalescent gel forms in Petri plates.

Reaction

Reaction of 5% w/v aqueous solution at 25°C pH: 7.2±0.2

pH range

7.00-7.40

CulturalResponse/Characteristics

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

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery	Antibiotics assayed
Bordetella bronchiseptica ATCC 4617	50-100	luxuriant	50-70%	Colistimethate sodium , colistin, Polymyxin B
Pseudomonas aeruginosa ATCC 25619	50-100	luxuriant	>=70%	Carbenicillin
Pseudomonas aeruginosa ATCC 27853	50-100	luxuriant	>=70%	Carbenicillin

Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.
Prepared Media: 2-8^0 in sealable plastic bags for 2-5 days.

Further Reading

1. Grove and Randall, 1955, Assay Methods of Antibiotics Medical Encyclopedia, Inc,New York.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conform solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate
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