Technical Information

Antibiotic MiVeg Assay Medium No.12 (Nystatin MiVeg Assay Agar)

Product Code : VM1280

Application:- Antibiotic MiVeg Assay Medium No.12 (Nystatin MiVeg Assay Agar) is used for microbiological assay of Amphotericin B and Nystatin using *Saccharomyces cerevisiae* ATCC 2601.

Composition**

Ingredients	Gms / Litre
MiVeg peptone	10.000
Sodium chloride	10.000
Dextrose	10.000
MiVeg extract	2.500
Yeast extract	5.000
Agar	25.000
Final pH (at 25°C)	6.1 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Antibiotic MiVeg Assay Medium No.12 (Nystatin MiVeg Assay Agar) is prepared by vegetable peptones instead of animal peptones which makes the medium BSE-TSE risks free. It serves same purpose of Antibiotic Assay Medium No.12 (Nystatin Assay Agar). This medium is prepared from the Groove and Randall formula (1). Antifungal antibiotics like Amphotericin B and Nystatin can be assayed using this medium. Ingredients like MiVeg peptone, yeast extract and MiVeg extract supplements essential nutrients, minerals and growth factors for the growth of test organism. Dextrose in the medium provides enhanced source of carbon and energy. Osmotic equilibrium in the medium is by sodium chloride which maintain the cell integrity and viability. It is preferable to use freshly prepared plates for antibiotic assays. Test organisms are inoculated in sterilised agar pre-cooled to 40-45°C and spread evenly over the surface of solidified base agar. Prediffusion of antibiotics for 10-20 minutes in the agar by incubating at temperature below the optimal growth temperature for microorganism would facilitate better diffusion of antibiotics followed by incubation of plates for microbial growth.

Methodology

Suspend 62.5 grams of powder media in 1000 ml distilled water. Mix thoroughly. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Quality Control

Physical Appearance

Cream to yellow homogeneous, free flowing powder.

Gelling

Firm, comparable with 2.5% Agar gel.

Colour and Clarity of prepared medium

Yellow clear to slightly opalescent gel forms in Petriplates

Reaction

Reaction of 6.25% w/v aqueous solution at 25°C pH : 6.1 ± 0.2.

pH range

5.90-6.30

CulturalResponse/Characteristics

Cultural characteristics observed after an incubation at 25-30°C for 18-24 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery	Antibiotics assayed
Saccharomyces cerevisiae ATCC 2601	50-100	luxuriant	>70%	Amphotericin B, Nystatin

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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