Antibiotic HiVeg Assay Medium No.13 (Nystatin HiVeg Assay Broth)

MV254

Antibiotic HiVeg Assay Medium No. 13 (Nystatin HiVeg Assay Broth) is used for the microbiological assay of Candicidin using *Saccharomyces cerevisiae* ATCC 9763.

Composition**

Ingredients	Gms / Litre
HiVeg peptone	10.000
Dextrose	20.000
Final pH (at 25°C)	5.6±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 30 grams in 1000 ml purified/distilled water. Heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool and dispense as desired.

Principle And Interpretation

Antibiotic HiVeg Assay Medium No. 13 is prepared by incorporating vegetable based peptones in place of animal peptones, making the medium BSE-TSE risks free. This can be used for the same purpose of Antibiotic Assay Medium No. 13 is formulated in accordance to CFR (1) and is numerically identical with the name assigned by Groove and Randall (2). Groove and Randall had elucidated the methods to perfrom antibiotic assays (2). Schmidt & Moyer reported the use of antibiotic assay medium for liquid formulation in performance of antibiotic assay (3). This medium is widely used in turbidometric assay of antifungals like Candicidin using test organisms like *Saccharomyces cerevisiae* . This is medium is also termed Sabouraud Liquid Broth Modified or Fluid Sabouraud Medium. This medium facilitates enhanced growth of test organism *Saccharomyces cerevisiae* employed in assay of Candicidin, a polyene antibiotic with antifungal activity. Assay is performed by enumerating the blastospores or by analysing the turbidity of the medium. Dextrose serves as carbon source HiVeg Peptone provides essential nutrients and growth promoting factors. Optimal pH for growth of *Saccharomyces cerevisiae* is maintained in this medium. Turbidimetric antibiotic assay is based on the change or inhibition of growth of a test microorganism in a liquid medium containing a uniform concentration of an antibiotic. After incubation of the test organism in the working dilutions of the antibiotics, the amount of growth is determined by measuring the light transmittance using spectrophotometer. The concentration of antibiotic is determined by comparing amounts of growth obtained with that given by the reference standard solutions. Use of this method is appropriate only when test samples are clear.

Note: For Antibiotic Assay Methods and Selection of Antibiotic HiVeg Assay Medias Refer Section Antibiotic HiVeg Assay Media.

Quality Control

Appearance
Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium
Light amber clear solution in tubes

Reaction
Reaction of 3.0% w/v aqueous solution at 25°C. pH : 5.6±0.2

pH
5.40-5.80

Cultural Response
MV254: Cultural characteristics observed after an incubation at 35 - 37°C for 18 - 24 hours.

Organism	Inoculum (CFU)	Growth	Serial dilution with
Saccharomyces cerevisiae ATCC 9763	50-100	luxuriant	Candicidin

Storage and Shelf Life

Store below 30°C in tightly closed container and use freshly prepared medium . Use before expiry date on the label

Reference

1. Tests and Methods of Assay of Antibiotics and Antibiotic containing Drugs, FDA, CFR, 1983 Title 21, Part436,Subpart D, Washington, D.C.: U.S. Government Printing Office, paragraphs 436, 100-436, 106, p. 242-259, (April 1).
2. Grove and Randall, 1955, Assay Methods of Antibiotics, Medical Encyclopedia, Inc. New York
3. Schmidt and Moyer, 1944. J.Bact., 47:199.

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