



Technical Data

Antibiotic HiVeg Assay Medium No. 8 (Base HiVeg Agar w/low pH) MV041

Antibiotic HiVeg Assay Medium No. 8 is used for the microbiological assay of Mitomycin, Plicamycin and Vancomycin.

Composition**

Ingredients	Gms / Litre
HiVeg peptone	6.000
Yeast extract	3.000
HiVeg extract	1.500
Agar	15.000
Final pH (at 25°C)	5.9±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 25.5 grams in 1000 ml purified/distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Advice: Recommended for the microbiological assay of Mitomycin, Plicamycin, Vancomycin, Oxytetracycline, Tetracycline .

Principle And Interpretation

Antibiotic HiVeg Assay Medium No. 8 is prepared incorporating vegetable peptones in place of animal peptones, making the medium BSE, TSE risks free. This medium can be used for the same purpose of Antibiotic Assay Medium No. 8, for the assay of various antibiotics. Grove and Randall have elaborately elucidated the methods to perform these assays and various media used for the same (1). Schmidt and Moyer have reported the use of antibiotic assay medium for the liquid formulation used in the performance of antibiotic assay (2). These media are also recommended by USP (3) and FDA (4). Similarly Antibiotic HiVeg Assay Medium No. 8, MV041 is used especially to prepare the base layer to assay Tetracyclines and other antibiotics. It provides a solidified substratum for growth of organisms. The medium has an optimal pH of 5.9 for assay of Tetracycline as these antibiotics are stable at slightly lower pH (5). This pH condition also supports the growth of test organisms. Antibiotic HiVeg Assay Medium No. 8 is also used as base and seed agar medium for agar diffusion assay for Mitomycin, Mithramycin, Plicamycin and Vancomycin. HiVeg extract, Yeast extract and HiVeg Peptone serves as a source of nutrients and growth factors.

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

Gelling

Firm, comparable with 1.5% Agar gel

Colour and Clarity of prepared medium

Light amber coloured slightly opalescent gel forms in Petriplates

Reaction

Reaction of 2.55% w/v aqueous solution at 25°C. pH : 5.9±0.2

pH

5.70-6.10

Cultural Response

MV041: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth	Recovery	Antibiotics assayed
<i>Bacillus subtilis</i> ATCC 6633	50-100	luxuriant	≥70%	Mitomycin, Vancomycin

Please refer disclaimer Overleaf.

Bacillus cereus var mycoides 50-100 luxuriant $\geq 70\%$ Oxytetracycline,
ATCC 11778 Tetracycline

Storage and Shelf Life

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

Reference

1. Grove and Randall, 1955, Assay Methods of Antibiotics Medical Encyclopedia, Inc. New York.
2. Schmidt and Moyer, 1944, J. Bact., 47:199.
3. United States Pharmacopoeia 2011 ,USP 34/NF 29 , US Pharmacopoeial Convention, Inc., Rockville, MD.
4. Tests and Methods of Assay of Antibiotics and Antibiotic containing Drugs, FDA, CFR, 1983 Title 21, Part 436, Subpart ,,D, Washington, D.C.: U.S. Government Printing Office, paragraphs 436, 100-436, 106, p. 242-259, (April 1).
5. Chapin-Robertson and Edberg, 1991, Antibiotics in Laboratory medicine, New York pp 311.

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