



# Technical Data

## Antibiotic HiVeg Assay Medium No.9 (Polymyxin HiVeg Base Agar) MV147

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

### Composition\*\*

Ingredients	Gms / Litre
HiVeg hydrolysate	17.000
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

### Directions

Suspend 50 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 Carbenicillin, Colistimethate sodium colistin and Polymyxin B .*

### Principle And Interpretation

Antibiotic HiVeg Assay Medium No.9 (Polymyxin HiVeg Base Agar) is prepared by incorporating vegetable 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.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).

HiVeg hydrolysate and Papaic digest of soyabean meal serves as source for 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 polymyxin B antibiotics and provides solid substratum to support the seed agar layer.

To perform the antibiotic assay the Base Agar should be prepared 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.

*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 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

**Please refer disclaimer Overleaf.**

7.00-7.40

**Cultural Response**

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

**Cultural Response**

Organism	Inoculum (CFU)	Growth	Recovery	Antibiotics assayed
<b>Cultural Response</b> <i>Bordetella bronchiseptica</i> ATCC 4617	50-100	good	50-70%	Colistimethate sodium, Colistin, Polymyxin B
<i>Pseudomonas aeruginosa</i> ATCC 25619	50-100	luxuriant	>=70%	Carbenicillin
<i>Pseudomonas aeruginosa</i> ATCC 27853	50-100	luxuriant	>=70%	Carbenicillin

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

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**Disclaimer :**

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