# Technical Data

## Antibiotic HiVeg Assay Medium No. 38

**MV799**

Antibiotic HiVeg Assay Medium No.38 is used for microbiological assay of Ticarcillin using *Pseudomonas aeruginosa*

## Composition**

| Ingredients | Gms / Litre |
|---|---|
| HiVeg peptone | 15.000 |
| Papaic digest of soyabean meal | 5.000 |
| Sodium chloride | 4.000 |
| Sodium sulphite | 0.200 |
| L-Cystine | 0.700 |
| Dextrose | 5.500 |
| Agar | 15.000 |
| Final pH ( at 25°C) | 7.0±0.2 |

**Formula adjusted, standardized to suit performance parameters

## Directions

Suspend 45.4 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.

## Principle And Interpretation

Antibiotic HiVeg Assay Medium No. 38 is prepared by 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 Medium No. 38 which follows the specification of CFR (1) and is routinely employed for agar diffusion assay of Ticarcillin using Gram negative test organisms especially *Pseudomonas aeruginosa* . This medium is used as both base agar and seed agar for assay of Ticarcillin.

HiVeg peptone and papaic digest of soyabean meal provides essential nutrients and growth factors for the growth of test organism. Dextrose serves as carbon source. Sodium chloride maintains the osmotic equilibrium. L-cystine and sodium sulphite are sulphur providers that aids assimilation of sulphur during microbial growth. L-cystine also acts as growth stimulator and enrich the medium with amino acid source for promoting the growth. The high nutritional content along with high sulfur (cystine and sodium sulphite) content improves growth with chromogenicity of test organism *Pseudomonas* .

Freshly prepared plates should be used for antibiotic assays. Test organisms are inoculated in sterile seed agar pre-cooled to 40-45°C and spread evenly over the surface of solidified base agar.

*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**
Yellow coloured clear to slightly opalescent gel forms in Petri plates.

**Reaction**
Reaction of 4.54% w/v aqueous solution at 25ºC. pH : 7.0±0.2

**pH**
6.80-7.20

**Cultural Response**
MV799: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours .

| Organism | Inoculum (CFU) | Growth | Recovery | Antibiotics assayed |
|---|---|---|---|---|
| *Pseudomonas aeruginosa ATCC 29336* | 50-100 | luxuriant | >=70% | Ticarcillin |

## Storage and Shelf Life

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

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