

## Technical Information

### Antibiotic MiVeg Assay Medium No. 38

#### Product Code : VM1799

**Application:-** Antibiotic MiVeg Assay Medium No.38 is recommended for microbiological assay of Ticarcillin using *Pseudomonas aeruginosa*

#### Composition

Ingredients	Gms / Litre
MiVeg 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.

#### Principle & Interpretation

Antibiotic MiVeg Assay Medium No. 38 is prepared by using vegetable peptones instead of animal peptones, which makes the medium BSE-TSE risks free. This medium serves 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 can be used as both base agar and seed agar for assay of Ticarcillin.

Essential nutrients and growth factors for the growth of test organism are provided by MiVeg peptone and papaic digest of soyabean meal. Dextrose serves as carbon source. The osmotic equilibrium is maintained by sodium chloride. 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 (which are prepared as same day of test) should be preferred 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.

#### Methodology

Suspend 45.4 grams of powder media in 1000 ml purified/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 1.5% Agar gel



Dehydrated Culture Media  
Bases / Media Supplements

#### 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 25°C pH: 7.0±0.2

#### pH range

6.80-7.20

#### Cultural Response/Characteristics

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

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery	Antibiotics assayed
<i>Pseudomonas aeruginosa</i> ATCC 29336	50-100	luxuriant	>=70%	Ticarcillin

## 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° in sealable plastic bags for 2-5 days.

## Further Reading

I. 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)

## Disclaimer :

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