

# **Technical Information**

## Soyabean MiVeg Agar

### Product Code: VM1290

**Application:-** Soyabean MiVeg Agar is a general purpose medium i.e., used with or without blood or other enrichment for isolating a wide variety of fastidious organisms.

### Composition

Ingredients	Gms / Litre				
MiVeg hydrolysate	15.0				
Papaic digest of soyabean meal	5.0				
Sodium chloride	5.0				
Agar	15.0				
Final pH (at 25°C)	7.3 ± 0.2				
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<sup>\*\*</sup> Formula adjusted, standardized to suit performance parameters.

## **Principle & Interpretation**

Soyabean MiVeg Agar is prepared by using vegetables peptones in place of animal based peptone thereby making the medium BSE/TSE risks free. Soyabean MiVeg Agar is the modification of Soyabean Casein Digest Agar. This medium can be used as a general purpose medium for multiple applications e.g. as a blood culture medium, as maintenance medium for culture collections (including maintenance of stock cultures), for testing bacterial contaminants and isolating fastidious organisms on enrichment with blood. It is basically used as nutritive base to which variety of supplements can be added. On supplementation with blood, haemolytic activity of bacteria can be studied (1,2). Using tube dilution method, sensitivity of antimicrobial agents can be determined. This medium is employed for cultivation and isolation of fastidious and non-fastidious microorganisms. MiVeg hydrolysate and Papaic digest of soyabean meal makes this media nutritious by providing amino acids and long chain peptides for the growth of microorganisms. Sodium chloride maintains the osmotic balance in the medium.

# Methodology

Suspend 40.0 grams of powder media in 1000 ml distilled water. Mix thoroughly and heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool the medium aseptically and add 5% v/v defibrinated blood, if desired.

# **Quality Control**

### Physical Appearance

Light yellow coloured may have slightly greenish tinge, homogeneous, free flowing powder.

### Gelling

Firm, comparable with 1.5% Agar gel.

#### Colour and Clarity of prepared medium

Basal, medium yields light yellow coloured, clear to slightly opalescent gel in petri plates. With the addition of blood, cherry red coloured opaque gel forms in petri plates.

#### Reaction

Reaction of 4.0% w/v aqueous solution is pH 7.3  $\pm$  0.2 at 25°C.

### pH Range

7.1-7.5





#### Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 35-37°C for 18-48 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Growthw/blood	Recovery***	Haemolysis
Bacillus subtilis (6633)	102-103	luxuriant	luxuriant	>70%	none
Bacteroides vulgatus** (8482)	102-103	luxuriant	luxuriant	>70%	none
Candida albicans* (10231)	102-103	luxuriant	luxuriant	>70%	none
Neisseria meningitidis (13090)	102-103	good	luxuriant	>70%	none
Staphylococcus aureus (25923)	102-103	luxuriant	luxuriant	>70%	Beta
Streptococcus pyogenes (19615)	102-103	good-luxuriant	luxuriant	>70%	Beta

**Key:** \* =This culture was incubated at 25-30°C for 2-7 days.

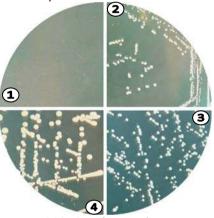
\*\* = When incubated anaerobically.

\*\*\* = with blood

# 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: 2-80 in sealable plastic bags for 2-5 day.



VM1290 Soyabean MiVeg Agar

(Against dark background)

- 1. Control
- 2. Streptococcus pyogenes
- 3. Staphylococcus aureus
- 4. Candida albicans

## **Further Reading**

1. MacFaddin 1985, Media for isolation-cultivation-identification-maintenancemedical bacteria Vol, I, Williams, & Wilkins, Baltimore, MD.

2. Forbes BA, Sahm DF, Weissfeld AS, 2002, Bailey and Scott's Diagnostic

Microbiology, 11<sup>th</sup> ed., The C.V. Mosby Co., St. Louis.

## **Disclaimer:**

- User must ensure suitability of the product(s) in their application prior to use.
- The product conform solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate.
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