

## Technical Information

### Glucose MiVeg Peptone Agar

**Product Code : VM1758**

**Application:-** Glucose MiVeg Peptone Agar is a highly nutritious medium recommended for the cultivation of *Agrobacterium* and wide variety of microorganisms.

### Composition

Ingredients	Gms / Litre
MiVeg peptone	20.00
Dextrose	10.00
Sodium chloride	5.00
Agar	15.00
Final pH (at 25°C)	7.2 ± 0.2

\*\* Formula adjusted, standardized to suit performance parameters.

### Principle & Interpretation

Glucose MiVeg Peptone Agar is prepared by using MiVeg peptone in place of animal based peptic digest of animal tissue thus making it free from TSE/BSE risks. It can also be used for cultivation of thermophilic organisms associated with flat sour spoilage in canned goods. Glucose MiVeg Peptone Agar like the conventional Glucose Peptone Agar with addition of bromocresol purple (1% alcoholic solution) is suitable for cultivation of root nodulating bacteria (1). MiVeg peptone supplies nitrogenous nutrients especially amino acids and peptides. Sodium chloride helps to maintain osmotic balance. Dextrose serves as carbon and energy source. This medium supports growth of *Agrobacterium* species, as it grows abundantly in media containing dextrose as carbohydrate source (2).

### Methodology

Suspend 50 grams of powder media in 1000 ml 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

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

Light yellow coloured, clear to slightly opalescent gel forms in petri plates.

#### Reaction

Reaction of 5.0% w/v aqueous solution is pH 7.2 ± 0.2 at 25°C.

#### pH Range

7.0 - 7.4

#### Cultural Response/Characteristics

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

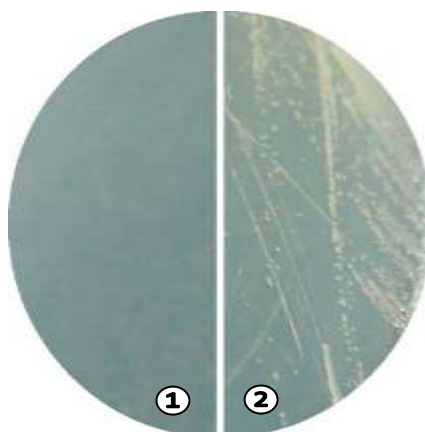
Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery
<i>Agrobacterium tumefaciens</i> (23308)	10 <sup>2</sup> -10 <sup>3</sup>	good-luxuriant	>70%
<i>Escherichia coli</i> (25922)	10 <sup>2</sup> -10 <sup>3</sup>	good-luxuriant	>70%
<i>Pseudomonas aeruginosa</i> (27853)	10 <sup>2</sup> -10 <sup>3</sup>	good-luxuriant	>70%

<i>Staphylococcus aureus</i> (25923)	$10^2$ - $10^3$	good-luxuriant	>70%
<i>Enterococcus faecalis</i> (29212)	$10^2$ - $10^3$	good-luxuriant	>70%

## 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 day.



**VM1758 Glucose Mi Veg Peptone Agar**

(Against dark background)

1. Control

2. *Agrobacterium tumefaciens*

## Further Reading

1. Subba Rao, N.S. 1977, Soil microorganisms and plant growth, Oxford and IBH publishing Co., India.
2. Ronald M. Atlas (2004), Handbook of Microbiological Media, Lawrence C. Parks (ed.), 3<sup>rd</sup> Edition, CRC Press, p. No. 717.

## 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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