

## Technical Information

### Lactobacillus Bulgaricus MiVeg Agar Base

#### Product Code : VM1927

**Application:-** Lactobacillus Bulgaricus MiVeg Agar Base with acetate buffer is used for isolation and identification of *Lactobacillus bulgaricus*.

#### Composition

Ingredients	Gms / Litre
MiVeg hydrolysate	10.0
Yeast extract	5.0
MiVeg extract	10.0
Dextrose	20.0
Dipotassium phosphate	2.0
Tomato juice	2.0
Polysorbate 80	1.0
Agar	20.0
Final pH (at 25°C)	6.8 ± 0.2

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

#### Principle & Interpretation

Lactobacillus Bulgaricus MiVeg Agar Base is prepared by using MiVeg hydrolysate and MiVeg extract instead of Casein enzymic hydrolysate and Beef extract respectively thereby making the medium BSE/TSE risks free. Lactobacillus Bulgaricus MiVeg Agar Base is the modification of Lactobacillus Bulgaricus Agar Base which was originally formulated by Kulp and White (1) for the recovery of *Lactobacilli* and further modified as recommended by APHA (2) for isolation and identification of *Lactobacillus bulgaricus* from foods.

MiVeg hydrolysate, MiVeg extract and yeast extract supply nitrogenous compounds, minerals, vitamins and trace ingredients. Polysorbate 80 supplies fatty acids needed for *Lactobacilli* metabolism. Dextrose is the fermentable carbohydrate. Tomato juice along with the acetate maintain the low pH of the medium and thus inhibits microorganisms other than *Lactobacilli*. Acetate also restricts the swarming of *Lactobacillus bulgaricus* and along with dipotassium phosphate forms the buffering system.

#### Methodology

Suspend 70 grams of powder media in 920 ml distilled water. Mix thoroughly and heat to boiling to dissolve the medium completely. Add 80 ml Acetate Buffer (11.355% Sodium acetate and 0.99% Acetic acid). Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. DO NOT OVERHEAT THE MEDIUM.

#### Quality Control

##### Physical Appearance

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

##### Gelling

Firm, comparable with 2.0% Agar gel.

##### Colour and Clarity of prepared medium

Medium amber coloured, clear to slightly opalescent gel forms in petri plates.

##### Reaction

Reaction of the medium (7% w/v aqueous solution of base containing 8% v/v acetate buffer) is pH 6.8 ± 0.2 at 25°C.

## pH Range

6.6 - 7.0

## Cultural Response/Characteristics

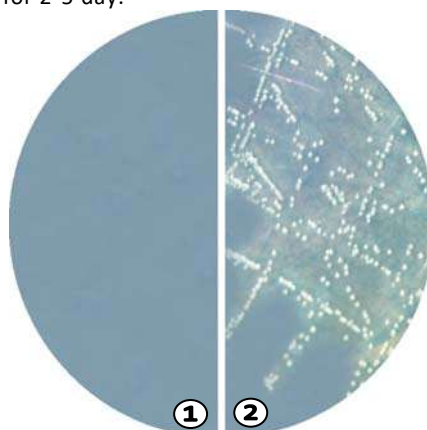
Cultural characteristics observed after an incubation at 35-37°C for 18-48 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery
<i>Lactobacillus bulgaricus</i> (11842)	$10^2$ - $10^3$	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.



**VM1927 *Lactobacillus Bulgaricus* MiVeg Agar Base**  
(Against dark background)

1. Control
2. *Lactobacillus bulgaricus*

## Further Reading

1. Kulp and White, 1932, Science, 76:17.
2. Downes FP, Ito K (Eds.), 2001, Compendium of Methods For the Microbiological Examination of Foods, 4<sup>th</sup> ed., APHA, Washington, D.C.

## 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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