# Lactobacillus Bulgaricus HiVeg™ Agar Base MV927

Lactobacillus Bulgaricus HiVeg Agar Base with acetate buffer is used for isolation and identification of *Lactobacillus bulgaricus*.

## Composition ** :

| Ingredients | Grams/Litre |
|---|---|
| HiVeg hydrolysate | 10.0 |
| Yeast extract | 5.0 |
| HiVeg 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.

## Directions :

Suspend 70 grams in 920 ml distilled water 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.

## Principle and Interpretation :

Lactobacillus Bulgaricus HiVeg Agar Base has HiVeg hydrolysate and HiVeg extract instead of Casein enzymic hydrolysate and Beef extract respectively. This makes the medium free of BSE/TSE risks. Lactobacillus Bulgaricus HiVeg 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.
HiVeg hydrolysate, yeast extract and HiVeg extract provide nitrogenous compounds, minerals, vitamins and trace ingredients. Polysorbate 80 supplies fatty acids required for the metabolism of *Lactobacilli*. 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.

## Quality Control :

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

**Gelling**
Firm, comparable with 2.0% Agar gel.

**Colour and Clarity**
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.

**Product Profile :**

| Vegetable based (Code MV)◉ | Animal based (Code M) |
|---|---|
| **MV927**<br>HiVeg hydrolysate<br>HiVeg extract | **M927**<br>Casein enzymic hydrolysate<br>Beef extract |

| | | |
|---|---|---|
| **Recommended for** | : | Isolation and identification of *Lactobacillus bulgaricus*. |
| **Reconstitution** | : | 70.0 g/l |
| **Quantity on preparation (500g)** | : | 7.14 L |
| **pH (25°C)** | : | 6.8 ± 0.2 |
| **Supplement** | : | Acetate Buffer |
| **Sterilization** | : | 121°C / 15 minutes. |

**Storage :** Dry Medium and Prepared Medium 2 - 8°C.

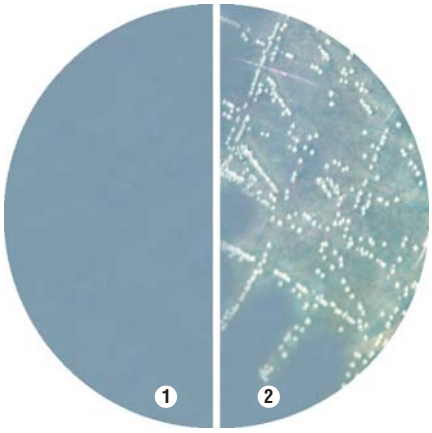
## Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 18 - 48 hours, with added acetate buffer.

| Organisms (ATCC) | Inoculum (CFU) | Growth | Recovery |
|---|---|---|---|
| *Lactobacillus bulgaricus* (11842) | $10^2$-$10^3$ | good-luxuriant | >70% |

## References :

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




**MV927 Lactobacillus Bulgaricus HiVeg Agar Base**
(Against dark background)
1. Control
2. *Lactobacillus bulgaricus*



◉ Prepared from GMO free Vegetable proteins replacing Animal based peptones. Freedom from BSE/TSE worries.