

## BLE HiVeg™ Broth Base (Buffered Listeria Enrichment HiVeg™ Broth Base)

MV1578

BLE HiVeg Broth Base (Buffered Listeria Enrichment HiVeg Broth Base) is used in the enrichment procedure for isolation of *Listeria monocytogenes*.

### Composition \*\* :

Ingredients	Grams/Litre
HiVeg hydrolysate	17.00
Papaic digest of soyabean meal	3.00
Sodium chloride	5.00
Dipotassium hydrogen phosphate	2.50
Dextrose	2.50
Yeast extract	6.00
Monopotassium phosphate (anhydrous)	1.35
Disodium phosphate (anhydrous)	9.6
Sodium pyruvate	1.0

Final pH (at 25°C) 7.3 ± 0.2

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

### Directions :

Suspend 48 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45°C. Aseptically add the rehydrated contents of 2 vials of Listeria Selective Supplement II (FD063I). Mix well and dispense as desired.

### Principle and Interpretation :

BLE HiVeg Broth Base (Buffered Listeria Enrichment HiVeg Broth Base) is the modification of conventional formula formulated as per APHA (1) for the selective enrichment of *Listeria monocytogenes* from foods. The original broth has been modified by buffering the medium, thereby making it possible for the medium to be used successfully in conjunction with DNA probe and other methods that are more sensitive than conventional cultural procedures.

HiVeg hydrolysate and papaic digest of soyabean meal provide amino acids and other complex nitrogenous substances. Dextrose is the energy source. Phosphates act as buffering system to control pH. Yeast extract is the rich source of vitamin B complex.

According to FDA's enrichment procedure (4) for isolation of *Listeria monocytogenes* from dairy products, the sample to be tested is inoculated in enrichment broth and incubated at 30°C for 4 hours without the selective supplement. After 4 hours the selective supplement is added and further kept for incubation for additional 44 hours at 30°C. At 24hrs and 48hrs the enriched culture is streaked on Oxford Listeria HiVeg Medium Base (MV1145) and LPM HiVeg Agar (MV1228) / Listeria identification HiVeg Agar Base, PALCAM (MV1064) and incubated at 35°C for 24-48 hours. Presumptive *Listeria* colonies are selected and

### Product Profile :

Vegetable based (Code MV)Ⓞ	Animal based (Code M)
<b>MV1578</b> HiVeg hydrolysate	<b>M1578</b> Casein enzymic hydrolysate
<b>Recommended for</b>	: Used in the enrichment procedure for isolation of <i>Listeria monocytogenes</i> .
<b>Reconstitution</b>	: 48.0 g/l
<b>Quantity on preparation (500g):</b>	10.41 L
<b>pH (25°C)</b>	: 7.3 ± 0.2
<b>Supplement</b>	: Listeria Selective Supplement II (FD063I)
<b>Sterilization</b>	: 121°C / 15 minutes.
<b>Storage</b>	: Dry Medium - Below 30°C, Prepared Medium 2 - 8°C.

colonies are further purified on Tryptone Soya Yeast Extract HiVeg Agar (MV1214). Purified isolates are then subjected to a variety of biochemical tests to confirm the presence of *L.monocytogenes*.

### Quality Control :

#### Appearance of powder

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

#### Colour and Clarity

Yellow coloured, clear solution in tubes.

#### Reaction

Reaction of 4.8% w/v aqueous solution is pH 7.3 ± 0.2 at 25°C.

#### Cultural Response

Cultural characteristics observed after an incubation at 30°C for 24 - 48 hours with added Listeria Selective Supplement II (FD063I).

#### Organisms (ATCC)

*Listeria monocytogenes* (19111)

*Listeria innocua* (33090)

*Escherchia coli* (25922)

#### Growth

good - luxuriant

good - luxuriant

inhibited

### References :

- Vanderzant C. and Splittstoesser D. (Eds.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4<sup>th</sup> ed., APHA, Washington D.C.
- International Organization for Standardization (ISO), 1993, Draft, ISO/DIS 10560.
- Atlas R. M. 1993, Handbook of Microbiological Media, CRC Press, Inc., Boca Raton.
- Bacteriological Analytical Manual, 1989, 8<sup>th</sup> ed. Supplement.