

## Salt Polymyxin HiVeg™ Broth Base

MV821

### Intended use

Recommended as a selective enrichment medium for *Vibrio* species for its further detection and enumeration.

### Composition\*\*

Ingredients	g / L
HiVeg™ hydrolysate	10.000
Yeast extract	3.000
Sodium chloride	20.000
Final pH ( at 25°C)	8.8±0.2

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

### Directions

Suspend 16.5 grams in 500 ml purified/distilled water. Heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C and aseptically add rehydrated contents of one vial of PolyB Selective Supplement (FD003). Mix well and dispense into sterile tubes or flasks as desired.

### Principle And Interpretation

Salt Polymyxin HiVeg™ Broth Base is prepared by using vegetable peptones in place of animal peptones, making the medium free from BSE/TSE risks. This can be used for the same purpose of Salt Polymyxin Broth formulated as per the recommendation of APHA (1) for detection and enumeration of salt tolerant *Vibrio parahaemolyticus*. *Vibrio* are fairly easy to isolate from both clinical and environmental material, though some species may require growth factors and /or vitamins. HiVeg™ Hydrolysate and yeast extract provide nitrogenous compounds, carbon, sulphur, trace elements, long chain amino acids and vitamin B complex, essential for the growth. Polymyxin B sulphate inhibits gram-positive organisms. The high concentration of sodium chloride and alkaline pH selectively favours growth of *Vibrio* species.

### Type of specimen

Food samples; Water samples.

### Specimen Collection and Handling:

Weigh 50grams of sample into a blender. Add 450 ml phosphate buffer saline dilution water and blend for 1 minute at 8000 rpm. This constitutes 1:10 dilution. Prepare 1:100, 1:1000, 1:10000 dilutions or higher, if necessary. Inoculate 3 x 10 ml portion of the 1:10 dilutions into 3 tubes containing 10 ml of enrichment broth i.e. Salt Polymyxin HiVeg™ Broth Base-2x concentration. This represents the 1 gram portion. Similarly inoculate 3 x 1ml of dilutions into 10 ml of single strength Salt Polymyxin HiVeg™ Broth Base. Incubate tubes at 35 ± 2°C for 24 hours. After the incubation a loopful is subcultured on solid medium such as TCBS HiVeg™ Agar (MV189) for further studies. After use, contaminated materials must be sterilized by autoclaving before discarding.

### Warning and Precautions

Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets.

### Limitations

1. Subculturing on solid media is required for further studies.
2. Further serological and biochemical testing is required for complete identification.

### Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

## Quality Control

### Appearance

Cream to yellow homogeneous free flowing powder

### Colour and Clarity

Light yellow clear

### Reaction

Reaction of 3.3% w/v aqueous solution at 25°C. pH : 8.8±0.2

### pH

8.60-9.00

### Cultural Response

Cultural characteristics observed with added Polymyxin B Selective Supplement (FD003), after an incubation at 35-37°C for 24-48 hours.

Organism	Inoculum (CFU)	Growth
<i>Vibrio parahaemolyticus</i> ATCC 11344	50-100	luxuriant
<i>Vibrio cholerae</i> ATCC 14035	50-100	luxuriant

## Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 15-25°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use. Product performance is best if used within stated expiry period.

## Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with sample must be decontaminated and disposed of in accordance with current laboratory techniques (2,3).

## Reference

1. Salfinger Y., and Tortorello M.L. Fifth (Ed.), 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.
2. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
3. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.

Revision : 03/2024

### Disclaimer :

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal or therapeutic use but for laboratory, diagnostic, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.