
Alkaline HiCynth™ Peptone Water**MCD618****Intended use**

Recommended for enrichment of *Vibrio* species from various samples.

Composition**

Ingredients	g / L
HiCynth™ Peptone No.1*	10.000
Sodium chloride	10.000
Final pH (at 25°C)	8.4±0.2

**Formula adjusted, standardized to suit performance parameters

* Chemically defined peptone

Directions

Suspend 20.0 grams in 1000 ml purified/distilled water. Heat if necessary to dissolve the medium completely. Dispense in tubes or flasks as desired. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle And Interpretation

Alkaline Peptone Water is a suitable enrichment broth for *Vibrio* species (1-3). Clinical materials containing small numbers of *Vibrio* can also be inoculated into an enrichment medium prior to plating onto a selective medium, such as TCBS HiCynth™ Agar (MCD870). This medium is recommended by APHA (4) for enrichment of *Vibrio* species from seafood (5). Alkaline HiCynth™ Peptone Water is prepared by completely replacing animal based peptones with chemically defined peptones to avoid risks associated with animal peptones. The relatively high pH of the medium (approximately 8.4) provides a favorable environment for the growth of *Vibrio's*.

HiCynth™ Peptone No.1* provides nitrogen and carbon source, long chain amino acids, vitamins and other essential nutrients. Sodium chloride maintains osmotic equilibrium. Add 10 grams of seafood to 90 ml of Alkaline HiCynth™ Peptone Water and incubate for upto 18-20 hours at 37°C. Prolonged incubation will result in growth of the suppressed contaminating organisms to develop (6). Growth in tubes is indicated by turbidity compared to an un-inoculated tube (control). Growth from the enrichment broth is used for plating on selective media. For biochemical identification a pure culture is recommended.

Type of specimen

Food samples; Water samples

Specimen Collection and Handling:

For water samples, follow appropriate techniques for sample collection, processing as per guidelines and local standards (4).

For food samples, follow appropriate techniques for sample collection and processing as per guidelines (7).

After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

For professional use only. 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 specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

1. Certain strains of *Vibrio* species requiring higher sodium chloride concentration may show poor growth.
2. Further recovery from this enriched broth onto selective media is required.
3. Biochemical characterization is carried out from pure isolates 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 the recommended temperature.

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Light yellow coloured clear solution without any precipitate

Reaction

Reaction of 2% w/v aqueous solution at 25°C. pH : 8.4±0.2

pH

8.20-8.60

Cultural Response

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

Organism	Inoculum (CFU)	Growth
<i>Vibrio cholerae</i> ATCC 15748	50-100	luxuriant
<i>Vibrio parahaemolyticus</i> ATCC 17802 (00037*)	50-100	luxuriant

Key : (*) Corresponding WDCM numbers.

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 15-30°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 (3,8).

Reference

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3. Isenberg, (Ed.), 1992, Clinical Microbiology Procedures Handbook, Vol. I, American Society for Microbiology, Washington, D.C.
4. Salfinger Y., and Tortorello M.L., 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.
5. Cruikshank R., 1968, Medical Microbiol., 11th Ed., Livingstone Ltd., London
6. Finegold S. M. and Martin W. J., 1982, W. J. Bailey and Scotts Diagnostic Microbiol, 6th Ed., C.V. Mosby Co., St. Louis, p. 242
7. Lipps WC, Braun-Howland EB, Baxter TE, eds. Standard methods for the Examination of Water and Wastewater, 24th ed. Washington DC:APHA Press; 2023.
8. 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.

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