Alkaline Peptone Water

Intended Use

Recommended for enrichment of Vibrio species from food, water and clinical samples.

Typical Composition (g/litre)

Peptic 10.0; Sodium chloride 10.0

Mode of Action

This medium is recommended by APHA for enrichment of Vibrio species from seafood, infectious materials and other clinical specimens such as faeces. Peptone provides nitrogen and carbon source, long chain amino acids, vitamins and other essential nutrients. Sodium chloride maintains osmotic equilibrium.

Preparation

Suspend 20.0grams of dehydrated medium in 1Litre 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.Final pH 8.4±0.2 at 25°C

Storage

Store between 10- 30°C in tightly closed container and the prepared medium at 15 - 25°C. Use before expiry date on the label.

Experimental Procedure and Evaluation

Add 10 grams of seafood to 90 ml of Alkaline 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. 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.

Quality Control

Organism	Inoculum	Growth
Vibrio cholera ATCC 15748	50 - 100	Luxuriant
Vibrio parahaemolyticusATCC 17802	50 - 100	Luxuriant

Reference

1. Gilligan, Janda, Karmali and Miller, 1992, Cumitech 12A, Laboratory Diagnosis of Bacterial Diarrhea, Coord. Ed., Nolte, American Society for Microbiology, Washington, D.C

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3. Forbes B. A., Sahm A. S., and Weissfeld D. F., Bailey & Scotts Diagnostic Microbiology, 10th Ed., 1998, Mosby, Inc., St. Louis, Mo.
4. 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.
5. Baird R.B., Eaton A.D., and Rice E.W., (Eds.), 2015, Standard Methods for the Examination of Water and Wastewater, 23rd ed., APHA, Washington, D.C.