

Technical Information

Alkaline Peptone

Product Code: DM 1618I

Application: - Alkaline Peptone Water is recommended for enrichment of *Vibrio* species.

Composition**

Ingredients	Gms / Litre
Peptic digest of animal tissue	20.000
Sodium chloride	30.000
Final pH (at 25°C)	8.6±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Clinical materials containing small numbers of *Vibrio* should be first inoculated into an enrichment medium prior to plating onto a selective medium, such as TCBS Agar (DM1189). Alkaline Peptone Water is a suitable enrichment broth for this purpose⁽¹⁻³⁾. This medium is recommended by APHA also⁽⁴⁾ for enrichment of *Vibrio* species from seafood, infectious materials and other clinical specimens such as faeces⁽⁵⁾. A slight modification of this medium has recently been approved by the ISO Committee⁽⁶⁾ for detection of *Vibrio* species.

Peptic digest of animal tissue provides amino acids and other nitrogenous substances. Sodium chloride maintains osmotic equilibrium. 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⁽⁷⁾. 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.

Methodology

Suspend 50 grams of powder media in 1000 ml distilled water. Shake well & heat if necessary to dissolve the medium completely. Dispense as desired and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Quality Control

Physical 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 5% w/v aqueous solution at 25°C. pH : 8.6±0.2

pH range

8.40-8.80

Cultural Response/Characteristics

DM 1618I: 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	50-100	luxuriant

Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.

Prepared Media: 2-8⁰ in sealable plastic bags for 2-5 days.



Dehydrated Culture Media
Bases / Media Supplements

Further Reading

1. Gilligan, Janda, Karmali and Miller, 1992, Cumitech 12A, Laboratory Diagnosis of Bacterial Diarrhea, Coord. Ed., Nolte, American Society for Microbiology, Washington, D.C.
2. Forbes B. A., Sahn A. S., and Weissfeld D. F., Bailey & Scotts Diagnostic Microbiology, 10th Ed., 1998, Mosby, Inc., St. Louis, Mo.
3. Isenberg, (Ed.), 1992, Clinical Microbiology Procedures Handbook, Vol. I, American Society for Microbiology, Washington, D.C.
4. Downes F. P. and Ito K., (Eds.), 2001, Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., APHA, Washington, D.C.
5. Cruikshank R., 1968, Medical Microbiol., 11th Ed., Livingstone Ltd., London.
6. International Organization for Standardization (ISO), 1990, Draft ISO/DIS 8914.
7. 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.

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