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Alkaline Saline Peptone Water

Recomnded for enrichment of Vibrio species from food and water samples.

REF: BS.1/AK01.100.0100	100	REF: BS.1/AK01.250.0250
Gram REF: BS.1/AK01.500.0500	500 Gram	250 Gram

CLINICAL SIGNIFICANCE

Vibrio have played a significant role in human history. Outbreaks of cholera, caused by Vibrio cholera, can be traced back in time to early recorded descriptions of enteric infections. The Vibrios have also received the attention of marine microbiologists who observed that the readily cultured bacterial population in near-shore waters and those associated with fish and shell fish were predominantly Vibrio species (1).Vibrio species are mainly responsible for causing cholera and food poisoning in humans. Vibrio cholera causes cholerae due to the intake of contaminated food such as raw oysters. Vibrio parahaemolyticus is a major cause of food borne infections, causing food poisoning (2). Since Vibrio species naturally occur in sea water, worth special mention is their need for sodium chloride, although some species can grow with minimum sodium chloride concentration (1). The widely used media for Vibrio isolation are TCBS Agar and Alkaline Peptone Water (3). Alkaline Saline Peptone Water (ASPW) is in accordance with ISO/TS 21872-1:2017 which specifies a horizontal method for the detection of the two main pathogenic Vibrio species causing intestinal illness in humans: V. parahaemolyticus and V.cholera (4). It is applicable to products intended for human consumption and the feeding of animals, and environmental samples in the area of food production and food handling. Peptone provides carbonaceous, nitrogeneous and essential nutrients to the organisms. High concentration of sodium chloride in addition to maintaining the osmotic equilibrium also has an inhibitory action on the accompanying microflora. holera (4). It is applicable to products intended for human consumption and the feeding of animals, and environmental samples in the area of food production and food handling. Peptone provides carbonaceous, nitrogeneous and essential nutrients to the organisms. High concentration of sodium chloride in addition to maintaining the osmotic equilibrium also has an inhibitory action on the accompanying microflora.

MEDIA COMPOSITION

Item	Formula in g/L
Peptone	20
Sodium chloride	20

pH after sterilization 8.6 ± 0.2 at 25°C

PRECAUTIONS AND WARNINGS

Media to be handled by entitled and professionally educated person.

Good Laboratories practices using appropriate precautions should be followed in:

- Wearing personnel protective equipment (overall, gloves, glasses,..).
- Do not pipette by mouth.
- In case of contact with eyes or skin; rinse immediately with plenty of soap and water. In case of severe injuries; seek medical advice immediately.
- Handle specimens and inoculated culture bottles as though capable of transmitting infectious agents. All inoculated culture

- bottles, specimen collection needles, and blood drawing devices should be decontaminated according to country requirement for waste disposal.

S56: dispose of this material and its container at hazardous or special waste collection point.

S57: use appropriate container to avoid environmental contamination.

S61: avoid release in environment.

For further information, refer to the Alkaline Saline Peptone Water material safety data sheet.

MEDIA PREPARATION, STORAGE AND STABILITY

STORAGE AND STABILITY

BioScien Alkaline Saline Peptone Water should be stored between 10-30°C in a firmly closed container and the prepared medium at 2-8°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to avoid lump development due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in a 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.

PROCEDURE

Suspend 40 grams in 1000 ml distilled water. Heat if necessary to dissolve the medium completely. Dispense as desired and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Deterioration

BioScien Alkaline Saline Peptone Water is Cream to yellow homogeneous free flowing powder. Prepared medium is Light yellow coloured clear solution without any precipitate. should not be used if there are any signs of deterioration (shrinking, cracking, or discoloration), and contaminations.

SPECIMEN COLLECTION AND PRESERVATION

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (11,12). For food and dairy samples, follow appropriate techniques for sample collection and processing as per guidelines (9,10,13). After use, contaminated materials must be sterilized by autoclaving before discarding.

TYPE OF SPECIMEN

Clinical samples
Food and Dairy samples
Environmental samples

EQUIPMENT REQUIRED NOT PROVIDED

- Sterile tubes
- Incubator
- Autoclave

QUALITY CONTROL

To ensure adequate quality control, it is recommended that positive and negative control included in each run. If control values are found outside the defined range, check the system performance. If control still out of range please contact the technical support.

PERFORMANCE CHARACTERISTICS

The following organisms are used by us as part of the quality assurance of the product.

Test Organisms	Growth
Vibrio cholerae ATCC 15748	Luxuriant
Vibrio parahaemolyticus ATCC 17802	Luxuriant

IVD	For in-vitro diagnostic use	Σ	Number of <n> test in the pack
LOT	Batch Code/Lot number		Caution
REF	Catalogue Number		Do not use if package is damaged
	Temperature Limitation		Consult Instruction for use
	Expiration Date		
	Manufactured by		

REFERENCES

1. Thompson et al (ed.). 2006. The Biology of Vibrios, ASM Press, chapter 1, pg
2. Alcamo. E.I, 2001. Fundamentals of Microbiology, 6th ed, Jones and Bartlett Publishers, Inc. pg 254, 244.
3. Clesceri, Greenberg and Eaton (ed.). 1998. Standard Method for the examination of Water and Waste water, 20th ed. American Public Health Association, Washington, D. C.
4. ISO/TS 21872-1:2017. Horizontal method for the detection of the two main pathogenic Vibrio species causing intestinal illness in humans: V. parahaemolyticus and V. cholera.
5. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
6. 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.
7. 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.
8. Lipps WC, Braun-Howland EB, Baxter TE,eds. Standard methods for the Examination of Water and Wastewater, 24th ed. Washington DC:APHA Press; 2023.