

Alkaline Peptone Water

Broth medium for the enrichment of *Vibrio* species from food, water and clinical samples.

REF: BS.1/PW01.100.0100	100 Gram	REF: BS.1/PW01.250.0250	250 Gram
REF: BS.1/PW01.500.0500	500 Gram		

CLINICAL SIGNIFICANCE

Formulated peptone water is used as a nonselective enrichment broth for the cultivation of Enterobacteriaceae from foodstuffs and other specimens. Alkaline Peptone Water is a modification of peptone water with the pH adjusted to 8.4. The alkaline pH of this medium allows the growth of *Vibrio* organisms while inhibiting the growth of commensal intestinal bacteria. Enrichment of specimens in Alkaline Peptone Water prior to inoculation of plated media has been shown to increase the recovery rate of *Vibrio* spp.

METHOD PRINCIPLE

The Alkaline Peptone Water medium can be used to efficiently cultivate *Vibrio* species. It is a suitable enrichment broth for this purpose. The 2% (w/v) sodium chloride incorporated in this medium promotes the growth of *Vibrio cholerae*, while the alkalinity of this medium inhibits most of the unwanted flora. Peptone provides a source of nitrogen, some carbon source, long chain amino acids, vitamins and other essential nutrients. Sodium chloride maintains osmotic equilibrium.

MEDIA COMPOSITION

Item	Formula per liter of medium
Peptone	10 gm
Sodium Chloride	20 gm

PRECAUTIONS AND WARNINGS

Media to be handled by entitled and professionally educated person. Do not ingest or inhale.

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.
- Respect 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 Peptone Water material safety data sheet.

STORAGE AND STABILITY

BioScien Alkaline Peptone Water should be stored between 10-30°C in a firmly 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 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.

Final pH 8.6±0.2 at 25°C

PREPARATION

Suspend 30.0 grams in 1000 ml 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.

Deterioration

The color of **BioScien** Alkaline Peptone Water medium is cream to yellow homogeneous free flowing powder. Prepared Media is clear light yellow in color without any precipitates. If there are any physical changes for powder or signs of deterioration (shrinking, cracking, or discoloration), and contaminations for hydrated media, discard the medium

SPECIMEN

Clinical samples (for example: faeces), Food samples, Water samples

EQUIPMENT REQUIRED NOT PROVIDED

- Sterile Test Tubes
- Incubator
- Autoclave

PERFORMANCE CHARACTERISTICS

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

Microorganism	Growth
<i>Vibrio cholerae</i> (ATCC 15748)	Turbid Growth
<i>Vibrio parahaemolyticus</i> (ATCC 17802)	Turbid Growth
<i>Vibrio furnissii</i> (ATCC 11218)	Turbid Growth
<i>Vibrio vulnificus</i> (ATCC 29307)	Turbid Growth

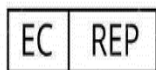
QUALITY CONTROL

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 **BioScien** technical support.

REFERENCES

1. Shread, P., Donovan T.J., and Lee J.V. (1991) Soc. Gen. Microbiol. Q. 8:184.
2. Cruickshank, R. (1968) Medical Microbiology. 11th ed. Livingstone Ltd, London, UK.
3. Janda J.M., et al. (1988) Current Perspectives on the Epidemiology and Pathogenesis of Clinically Significant Vibrio spp. Clinical Microbiology Reviews July 3:245-267.
4. Gilligan, Janda, Karmali and Miller, 1992, Cumitech 12A, Laboratory Diagnosis of Bacterial Diarrhea, Coord. Ed., Nolte, American Society for Microbiology, Washington, D.C.
5. Forbes B. A., Sahm A. S., and Weissfeld D. F., Bailey & Scotts Diagnostic Microbiology, 10th Ed., 1998, Mosby, Inc., St. Louis, Mo.
6. Isenberg, (Ed.), 1992, Clinical Microbiology Procedures Handbook, Vol. I, American Society for Microbiology, Washington, D.C.

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



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