

# Alkaline Saline Peptone Water ISO

Cat. 2155

For the pre-enrichment and selective enrichment of *Vibrio* spp.

## Practical information

Applications	Categories
Enrichment	Vibrio

Industry: Food

Regulations: ISO 21872

## Principles and uses

Alkaline Saline Peptone Water is used for the pre-enrichment and selective enrichment of *Vibrio* spp for detection of potentially enteropathogenic *Vibrio* parahaemolyticus, *Vibrio cholerae* and *Vibrio vulnificus*.

Pathogenic *Vibrio* to humans causes cholera, cholera diarrhea or food poisoning from contaminated foods and from stool specimens. The last two conditions especially can be caused by ingesting raw or partially processed fish or seafood containing *Vibrio* parahemolyticus.

Peptone provides nitrogen, vitamins, minerals and amino acids essential for growth. Sodium chloride promotes growth (*Vibrio* grows well in salty media).

## Formula in g/L

Peptone	20	Sodium chloride	20
---------	----	-----------------	----

## Preparation

Suspend 40 grams of the medium in 1 liter of distilled water. Mix well and dissolve by boiling for 1 minute stirring constantly. Distribute in suitable containers and sterilize in an autoclave at 121 °C for 15 minutes.

## Instructions for use

According to ISO 21872 for the detection of potentially enteropathogenic *Vibrio* spp:

- Inoculate the test portion in Alkaline Saline Peptone Water (Cat. 2155) and incubate at 41,5 °C for 6 hours and/or 37 °C for 6 hours.
- Inoculate the culture obtained in Alkaline Saline Peptone Water (Cat. 2155) again, and incubate at 41,5 °C for 18 hours and/or 37 °C for 18 hours.
- The incubation conditions depend on the target species or product state.
- From the cultures obtained in the first and the second enrichment liquid selective medium (Alkaline Saline Peptone Water), inoculate two selective media; TCBS Agar (Cat. 1074) and any other selective medium complementary to TCBS Agar ( For instance; *Vibrio* Chromogenic Agar (Cat. 2054))
- Incubate the TCBS plates at 37 °C for 24 hours.
- Incubate the second selective medium in accordance with the manufacturer's instructions.
- Subculture the colonies of presumptive *Vibrio* and confirm by biochemical means and PCR tests.

## Quality control

Solubility	Appearance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25°C)
w/o rests	Fine powder	Beige	Clear amber	8,6 ± 0,2

## Microbiological test

Incubation conditions: (37 °C / 6±1 h y 37 °C / 18±1 h)

Microorganisms	Specification
<i>Vibrio furnissi</i> NCTC 11218	Good growth,turbidity

Vibrio cholerae ATCC 14034  
Vibrio parahemolyticus ATCC 17802  
Vibrio vulnificus ATCC 27562

Good growth,turbidity  
Good growth, turbidity  
Good growth,turbidity

## Storage

---

Temp. Min.:2 °C  
Temp. Max.:25 °C

## Bibliography

---

APHA AWWA WEF (1998) Standard Methods for the examination of water and wastewater. 20th ed. APHA. Washington, DC.  
ATLAS, R.M.& L.C. PARKS (1993) Handbook of Microbiological Media, CRC Press Inc., London.  
DOWNES, F.P.& K. ITO (2001). Compendium of Methods for the Microbiological Examination of Food. 4th Ed. APHA, Washington.  
ISO 21872-1 Technical Specification (2017) Microbiology of Food chain- Horizontal method for the detection of potentially enteropathogenic Vibrio spp. - Part 1: Detection of Vibrio parahaemolyticus and Vibrio cholerae and Vibrio vulnificus.  
ISO 11133:2014. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.