77185 Peptone Water (Tryptone Water)

For pre-enrichment of bacteria, in particular pathogenic members of the Enterobacteriaceae, from food and clinical specimens. Peptone Water is used for the detection of indole and carbohydrate fermentation studies and serves as a base for other media.

Composition:

Ingredients	Grams/Litre
Casein peptone	10.0
Yeast extract	3.0
Sodium chloride	60.0
Final pH 7.5 +/- 0.2 at 25°C	

Store prepared media below 8°C, protected from direct light. Store dehydrated powder, in a dry place, in tightly-sealed containers at 2-25°C.

Directions:
Dissolve 73 g in 1 litre distilled water and fill into containers. Sterilize by autoclaving at 121°C for 15 minutes.
It is recommended to add about 25 ml of sample to 225 ml Peptone Water. Homogenize and incubate for 16-24 hours at 35-37°C.

Principle and Interpretation:
Casein peptone and yeast extract provide nitrogen, vitamins and minerals. Sodium chloride is for osmotic balance. The conditions are ideal to get high resuscitation rates for sublethally injured bacteria and intense growth.
To study the fermentation ability of different carbohydrates, add 0.5% carbohydrate (like dextrose, mannose, rhamnose, saccharose, salicin, ...) and phenol red (0.02 g/l) as indicator. In fermentation, the pH is drops and the phenol red changes color to yellow. It is also possible to use Durham tubes to detect gas production.

Cultural characteristics after 18-48 hours at 35°C (if necessary 76 hours).

Organisms (ATCC/WDCM)	Growth
Escherichia coli (25922/00013)	-
Escherichia coli serotype O157:H7 (35150/-)	-
Salmonella typhimurium (14028/00031)	+++
Staphylococcus aureus (25923/00034)	+++
Vibrio alginolyticus (17749/-)	+++
Vibrio parahaemolyticus (17802/00037)	+++

References:
1. Schweizerisches Lebensmittelbuch" 5th ed., chapter 56A
2. S.M. Finegold, W.J. Martin, Bailey and Scott's Diagnostic Microbiology 6th ed., St. Louis, The C.V. Mosby Company (1982)
3. E.H. Lennette, A. Ballows, W.J.Jr. Hausler, H.J. Shadomy, Manual of Clinical Microbiology. 4th ed., Washington D.C.: American society for Microbiology (1985)
4. J. F. Mac Faddin, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria. Vol. I, Baltimore, MD.: Williams & Wilkins (1985)

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.