

0.1% Peptone Water

Intended use

Recommended as a growth medium and as a base for carbohydrate fermentation media.

Composition**

Ingredients	g/ L
Peptone	1.000
Final pH (at 25°C)	7.1±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Label the ready to use LQ172DE bottle. In sterile environment, unscrew the bottle. Inoculate the medium with the pre-determined volume of the sample or 50-100 CFU of a known culture (as positive control) and incubate at 35 - 37° C for 24-48 hours.

Principle And Interpretation

Peptone Water, 0.1% is a minimal nutrient media designed to reduce multiplication of microorganisms (1,2). Peptone Water is a non selective media can be utilized as a base for carbohydrate fermentation studies with the addition of sugar and indicators such as bromocresol purple, phenol red or bromothymol blue and for production of indole (3).

Type of specimen

Food samples; Water samples

Specimen Collection and Handling

For food samples, follow appropriate techniques for sample collection and processing as per guidelines (2).

For water samples, follow appropriate techniques for sample collection, processing as per guidelines and local standards (1).

After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions

Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations

1. Further recovery from this enriched medium onto selective media is required.
2. Biochemical and serological characterization is required to be carried out from pure isolates for complete identification.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance

Sterile clear 0.1% peptone water in glass bottle

Colour

Colourless medium

Quantity of medium

500 ml of medium in bottle

pH

6.90- 7.30

Sterility Check

Passes release criteria

Cultural response

Cultural characteristics observed after an incubation at 35 - 37°C for 24-48 hours.

Organism	Inoculum (cfu)	Growth
<i>Escherichia coli</i> ATCC 25922 (00013*)	50-100	good
<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC 25923 (00034*)	50-100	good
<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC 6538 (00032*)	50-100	good
<i>Candida albicans</i> ATCC 10231 (00054*)	50-100	good

Key : (*) Corresponding WDCM numbers.

Storage and Shelf Life

Store between 15-30°C. Use before expiry date on the label. Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with sample must be decontaminated and disposed of in accordance with current laboratory techniques (4,5).

Reference

- 1.Lipps WC, Braun-Howland EB, Baxter TE,eds. Standard methods for the Examination of Water and Wastewater, 24th ed. Washington DC:APHA Press; 2023.
- 2.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.
- 3.MacFaddin J., 1980, Biochemical Tests for Identification of Medical Bacteria, 2nd ed., Williams and Wilkins, Baltimore.
- 4.Isenberg, (Ed.), 1992, Clinical Microbiology Procedures Handbook, Vol. I, American Society for Microbiology, Washington, D.C.
- 5.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.

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