

Peptone Water | Ready-to-use Media

a product by **Biomed MDX**

Effective Date: 19/12/2025

REF TB05P2001

Intended Use:

Peptone Water is for enrichment and enumeration of a wide range of bacteria in various samples, including water, sewage, faeces, and other materials.

Principle of the Procedure:

The principle of Peptone Water is centered on providing a simple, non-selective nutrient base that supports the growth of non-fastidious microorganisms while maintaining osmotic stability. It functions primarily through its two main components: peptone, which provides essential nitrogen, vitamins, and amino acids (specifically tryptophan) through the enzymatic digestion of animal protein, and sodium chloride, which ensures a stable osmotic environment to prevent cell lysis. Because it is a carbohydrate-free basal medium, it is uniquely suited for biochemical differentiation; it is most commonly used to perform the Indole test, where bacteria possessing the enzyme tryptophanase break down the tryptophan in the peptone to produce indole, detectable by a color change upon the addition of Kovacs' reagent. Additionally, its neutral composition makes it an ideal diluent for sample suspension and a versatile base for carbohydrate fermentation studies.

Product Summary:

Peptone Water is a foundational non-selective medium used in microbiology for the cultivation of non-fastidious microorganisms and the performance of essential biochemical assays. The medium operates on the principle of providing a stable osmotic environment via sodium chloride while supplying necessary nitrogenous nutrients and high tryptophan levels through enzymatic protein digests. Its minimalist composition makes it an ideal basal substrate for determining metabolic profiles, specifically in the identification of indole production and the assessment of carbohydrate fermentation patterns.

Formulation* (PER LITER):

Peptone	15.0g
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pH 7.2 +/- 0.2

*Adjust and/or supplemental as required to meet performance criteria

Procedure

Materials Provided

5mL Peptone Water.

Materials Required But Not Provided

Ancillary culture media, reagents, and laboratory equipment as required.

Test Procedure

1. Inoculate and streak the specimen as soon as possible after it is received in the laboratory with an aseptic technique.
2. Incubate at $35 \pm 2^\circ\text{C}$ for up to 6 to 8 hours.
3. Observe the result according to user requirements.
4. Dispose of all used reagents and contaminated materials as infectious waste. Laboratories must handle and dispose of all waste safely according to regulations.

Results

Examine for colonies exhibiting typical microscopic and colonial morphology. Appropriate biochemical or immunological tests may be required for final identification

Quality Control

Inoculate representative samples with the following strains. Incubate the inoculated tubes at $35 \pm 2^\circ\text{C}$ for up to 6 to 8 hours.

Strains	ATCC®	Growth Results
<i>Staphylococcus aureus</i>	25923	Turbid growth
<i>Escherichia coli</i>	25922	Turbid growth
Uninoculated plate	-	No growth

Transportation:

Temperature fluctuations may occur during transportation. However, these fluctuations do not affect the performance, quality, or safety of the media.

Storage and Shelf Life:

Upon receipt, store tubes at 2 to 8°C in their original sleeve wrapping until just before use. Avoid freezing and overheating.

The tubes may be inoculated up to the expiration date (see package label) and incubated for the recommended incubation times.

Warning and Precautions:

For in vitro diagnostic use. For Professional Use Only. Do Not Reuse.

Do not use tubes if they show evidence of microbial contamination, discoloration, drying, cracking, or other signs of deterioration.













Limitations of the Procedure

This medium is for laboratory use only and is not intended for the diagnosis of disease or other conditions. Identifications are presumptive and colonies should be identified using appropriate methods

Reference




1. Gray, V. L., Müller, C. T., Watkins, I. D., & Lloyd, D. (2008). Peptones from diverse sources: pivotal determinants of bacterial growth dynamics. *Journal of applied microbiology*, 104(2), 554-565.

Packaging Symbol

Symbol	Definition
	Catalogue number
	In Vitro Diagnostic Medical Device
	Batch code
	Date of manufacture
	Temperature limit
	Use-by date
	Keep away from sunlight
	Do not re-use
	Fragile, handle with care
	Consult instructions for use or consult electronic instructions for use
	Do not use if packaging damaged and consult instructions for use
	Manufacturer

Further Information:

For further information please contact your Biomed MDX representative.

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