Peptone Water

Liquid medium for the cultivation of non-fastidious microorganisms, indole testing and carbohydrate fermentation studies.

Instructions For Use
ENGLISH

DESCRIPTION

Peptone Water is a liquid medium used for the cultivation of non-fastidious microorganisms and indole testing. It is also a basal medium to which carbohydrates and indicator may be added for fermentation studies. This medium is not intended for use in the diagnosis of disease or other conditions in humans.

TYPICAL FORMULA*	(g/litre)
Peptone	10.0
Sodium Chloride	5.0

Final pH 7.2 ± 0.2 at 25°C

*Adjusted and/or supplemented as required to meet performance criteria.

METHOD PRINCIPLE

Peptone provides carbon, nitrogen, vitamins and minerals and is rich in tryptophan content. Sodium chloride maintains the osmotic balance of the medium.

PREPARATION

Dehydrated medium: Suspend 15.0 g of the powder in 1 liter of distilled or deionized water. Mix well. Heat to boil and shake until completely dissolved. Dispense into final containers. Sterilize in autoclave at 121°C for 15 minutes.

TEST PROCEDURE

To perform indole test, inoculate a tube of Peptone Water preheated to 44°C, using a sampling loop. Incubate at 35 ± 2°C for 24-48 h. Add 2-3 drops of Kovac's Reagent (ref. 80271 / 87001) and examine soon after.

To study the fermentation ability of carbohydrates, add the sugar solution usually at 10% w/v concentration to the basal medium. Phenol red can be used as pH indicator and Durham tube to detect the gas production. Incubate at 35 ± 2°C for 18-24 h.

INTERPRETING RESULTS

Turbidity of the medium indicates microbial growth (compare to an uninoculated control).

The formation of a red to purple colour (“cherry-red ring”) in the reagent layer on top of the medium within 30 sec indicates a positive reaction for indole production. A negative reaction shows no colour change.

If phenol red has been included, the medium turns yellow in the case of acidic production, that is carbohydrate utilization.

STORAGE

The powder is very hygroscopic, store the powder at 10-30°C, in a dry environment, in its original container tightly closed. Store tubes and bottles at 10-25°C away from light. Do not use the product beyond its expiry date on the label or if product shows any evidence of contamination or any sign of deterioration.

SHELF LIFE

Dehydrated medium: 4 years.
Tubes/Bottles: 2 years.

QUALITY CONTROL

Appearance of Dehydrated Medium: Free-flowing, homogeneous, beige.

Appearance of Prepared Medium: Clear to very slightly opalescent, light amber.

Expected Cultural Response:

Strain		Inoculum	Incubation	Growth	Indole test	Lactose test
Escherichia coli	ATCC 25922	≤100 CFU	18-48 h 35 ± 2°C	Good	Positive	Positive
Salmonella Typhimurium	ATCC 14028				Negative	Negative

Please refer to the actual batch related Certificate of Analysis (CoA).

WARNING AND PRECAUTIONS

For professional use only. Operators must be trained and have certain experience in the laboratory methods. Please read the instructions carefully before using this product. Reliability of assay results cannot be guaranteed if there are any deviations from the instructions in this document.

Consult the Safety Data Sheet (SDS) for information regarding hazards and safe handling practices.

DISPOSAL OF WASTE

Disposal of waste must be carried out according to national and local regulations in force.

BIBLIOGRAPHY

See the references at the end of this document.

TABLE OF SYMBOLS

See the table of symbols at the end of this document.

The product is available in the various configurations listed below. There may be additional product ref. numbers as well. For an updated listing of available products, visit **liofilchem.com**

Product	Format	Packaging	Ref.
Peptone Water	Tube	20 x 10 ml	24098
Peptone Water	Bottle	25 x 90 ml	452640
Peptone Water	Bottle	6 x 100 ml	402130
Peptone Water	Bottle (perforable cap)	6 x 100 ml	402530
Peptone Water	Bottle	6 x 500 ml	470320
Peptone Water	Dehydrated medium	500 g of powder	610038
Peptone Water	Dehydrated medium	100 g of powder	620038

This document is available from the online Support Center:

liofilchem.com/ifu-sds