

PRODUCT CODE: 413794

Peptone Water (Dehydrated Culture Media) for microbiology

Preparation

Suspend 15 grams of the medium in one litre of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Dispense into appropriate containers and sterilize in autoclave at 121°C for 15 minutes. The prepared medium should be stored at 2-8°C.

The colour is amber. The dehydrated medium should be homogeneous, free-flowing and white cream to slightly toasted in colour. If there are any physical changes, discard the medium.

Uses

PEPTONE WATER (TRYPTONE WATER) is recommended for the detection of Enterobacteriaceae, in particular of *E. coli*, in water and food samples based on indole production. Tryptone provides nitrogen, vitamins, minerals and amino acids essential for growth and Sodium chloride supplies essential electrolytes for transport and osmotic balance.

This medium is a good substrate for the production of indole because of its high content of tryptophan. The ability of certain organisms to break down the amino acid tryptophan with indole formation is an important property which is used for the classification and identification of bacteria. Inoculate and incubate at $35 \pm 2^\circ\text{C}$ for 18-24 hours. For the indole test, add 3 to 4 drops of Kovac's Reagent and shake the tube gently.

The appearance of a red or pink colour in the reagent layer is a positive indication of indole. Compare the results with a non-inoculated test tube. This medium is recommended by CeNAN (National Center for Food and Nutrition).

Composition

See in Data Sheet (TDS).

Microbiological Test

The following results were obtained in the performance of the medium from type cultures after incubation at a temperature of 35 °C and observed after 18 - 24 hours.

Microorganism	Growth	Indol
<i>Escherichia coli</i> ATCC 25922	Good	+
<i>Salmonella typhimurium</i> ATCC 14028	Good	-
<i>Staphylococcus aureus</i> ATCC 25923	Good	-

According to ISO 11133:

Microorganism	International Standard	Incubation	Methods of Control	Criteria
<i>Escherichia coli</i> ATCC 25922	ISO 6887	45 min – 1 h 20-°C to 25°C	Quantitative	± 30% colonies
<i>Escherichia coli</i> ATCC 8739	ISO 6887	45 min – 1 h 20-°C to 25°C	Quantitative	± 30% colonies
<i>Staphylococcus aureus</i> ATCC 25923	ISO 6887	45 min – 1 h 20-°C to 25°C	Quantitative	± 30% colonies
<i>Listeria monocytogenes</i> ATCC 13932	ISO 11290-2	1 h ± 5 min / 20 ± 2°C	Quantitative	± 30% colonies
<i>Listeria monocytogenes</i> ATCC 35152	ISO 11290-2	1 h ± 5 min / 20 ± 2°C	Quantitative	± 30% colonies
<i>Salmonella typhimurium</i> ATCC 14028	ISO 6579/ ISO 21528-1	18 ± 2 h/ 37 ± 1°C	Qualitative	Turbidity
<i>Salmonella enteritidis</i> ATCC 13076	ISO 6579	18 ± 2 h/ 37 ± 1°C	Qualitative	Turbidity
<i>Escherichia coli</i> ATCC 25922	ISO 21528-1	18 ± 2 h/ 37 ± 1°C	Qualitative	Turbidity
<i>Escherichia coli</i> ATCC 8739	ISO 21528-1	18 ± 2 h/ 37 ± 1°C	Qualitative	Turbidity

Reference media TSA Aga

Storage

Once opened keep powdered medium closed to avoid hydration.