

Tryptose Phosphate Broth

For the cultivation of fastidious microorganisms.

Practical information

Applications	Categories
Enrichment	Fastidious microorganisms

Industry: Clinical

Principles and uses

Tryptose Phosphate Broth is recommended for the cultivation of fastidious and pathogenic microorganisms.

Peptones provide nitrogen, vitamins, minerals and amino acids essential for growth. Dextrose is the fermentable carbohydrate providing carbon and energy. Sodium chloride supplies essential electrolytes for transport and osmotic balance. The buffering capacity is provided by the disodium phosphate.

The addition of 0,1-0,2 % agar to Tryptose Phosphate Broth delays the dispersion of CO₂ and diffusion of O₂ and facilitates the anaerobic growth. The low concentration of agar provides conditions for both aerobic growth in the upper zone and microaerophilic and anaerobic growth in the lower zone.

Formula in g/L

Dextrose	2	Casein peptone	13
Disodium phosphate	2,5	Sodium chloride	5
Peptone Proteose N°3	7		

Preparation

Suspend 29,5 grams of the medium in one liter 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.

Instructions for use

Inoculate and incubate at 35±2°C for 18-48 hours.

Quality control

Solubility	Appearance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25°C)
w/o rests	Fine powder	Beige	Amber, slightly opalescent	7,3±0,2

Microbiological test

Incubation conditions: (35±2 °C / 18-48 h).

Microrganisms	Specification
Staphylococcus epidermidis ATCC 12228	Good growth
Neisseria meningitidis ATCC 13090	Good growth
Streptococcus pyogenes ATCC 19615	Good growth
Streptococcus pneumoniae ATCC 6305	Good growth

Storage

Temp. Min.:2 °C
Temp. Max.:25 °C

Bibliography

Gray, M.L., Stafseht, H.J., a. Thorp, F.JR.: The use of potassium tellurite, sodium azide and acetic acid in a selective medium for the isolation of *Listeria monocytogenes*. - J. Bact., 59: 443-444 (1950]
Hausler, W.J., a. Koontz, F.P.: Brucellosis in Diagnostic procedures for Bacterial, Mycotic and Parasitic Infections: ed., APHA, New York (1970).