PRODUCT DATA SHEET

TRYPTOSE PHOSPHATE BROTH TM 511

For cultivation of fastidious bacteria and as adjuvant to tissue culture media

Composition

Ingredients	Gms/Ltr.
Tryptose	20.00
Sodium chloride	5.00
Disodium hydrogen phosphate	2.50
Dextrose	2.00

* Dehydrated powder, hygroscopic in nature, store in a dry place in tightly- sealed containers at 25°C and protected from direct Sunlight.

Instructions for Use

Dissolve 29.50gms in 1000ml of distilled water. Add 0.1- 0.2% agar, if desired. Gently heat to boiling with gentle swirling and dissolve the medium completely. Sterilize by autoclaving at 15 psi (121°C) for 15 minutes. Cool to 45-50°C and dispense into sterile test tubes as desired.

Appearance: Light yellow colour, clear solution
pH (at 25°C): 7.3 ± 0.2

Principle

TRYPTOSE PHOSPHATE BROTH is used for cultivation of fastidious bacteria and as adjuvant to tissue culture media. This medium is a versatile nutritionally rich buffered glucose broth. The tryptose content of Tryptose Phosphate Broth is considered to be a stimulating factor for cells. Ginsberg and coworkers maintained tissue cultures of HeLa cells for at least 10 days in a mixture of 15-25% Tryptose Phosphate Broth, 67.5-77.5% Scheren maintenance solution and 7.5% chicken serum. The cells increased 3-5 fold in number during this period. Smaller quantities of ARD, AD and type 1 poliomyelitis virus could be detected and more ARD virus could be propagated in HeLa cells in the Tryptose Phosphate. Tryptose Phosphate Broth is specified for cell culture procedures. Medium contains Tryptose as a source of nitrogen, carbon, vitamins and other essential factors for growth. Dextrose serves as energy and carbon source. Sodium chloride maintains the osmotic environment. Disodium phosphate is the buffering agent. The addition of 0.1-0.2% agar to Tryptose Phosphate Broth facilitates anaerobic growth and aids in dispersion of reducing substances and CO_2 formed in the environment. The low agar concentration provides suitable conditions for both aerobic growth in the upper zone and for microaerophilic and anaerobic growth in the lower zone.

Interpretation

Cultural characteristics observed after inoculating (10^3 CFU / ml), on incubation at 35-37ºC for 18 - 48 hours.

Test strains	ATCC	Inoculum (CFU/ml)	Growth
Staphylococcus epidermidis	12228	10^3	Good

Streptococcus pneumoniae	6305	10^3	Good
Streptococcus pyogenes	19615	10^3	Good
Neisseria meningitides	13090	10^3	Good

References:

1. Harmon, S.M., Kautter, D.A., Golden, D.A., Rhodehamel, E.J. 1995. FDA Bacteriological analytical manual, 8th ed. AOAC International, Arlington, VA.
2. MacFaddin, J.F. 1985. Media for isolation-cultivation-identification-maintenance of medical bacteria, Vol. 1, Williams and Wilkins, Baltimore.
3. Ginsberg, H.S., Gold, E., Jordan, W.S. 1955. Proc. Soc. Exp. Biol. Med. **89:**66-71.