

Technical Information

Tryptose Phosphate Broth, MiVeg

Product Code : VM1093

Application:- Tryptose Phosphate Broth, MiVeg is used for the cultivation of fastidious bacteria and also as an adjuvant to tissue culture media.

Composition**

| Ingredients | Gms / Litre |
|------------------------|-------------|
| MiVeg hydrolysate No.1 | 20.0 |
| Dextrose | 2.0 |
| Sodium chloride | 5.0 |
| Disodium phosphate | 2.5 |
| Final pH (at 25°C) | 7.3 ± 0.2 |

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Tryptose Phosphate Broth, MiVeg is prepared by using MiVeg hydrolysate No.1 in place of animal based Tryptose thus making the medium BSE/TSE risks free. Tryptose Phosphate Broth, MiVeg is the modification of Tryptose Phosphate Broth which is formulated as recommended by APHA (1) for the cultivation of fastidious aerobic bacteria especially *Streptococcus* species, *Listeria* and pathogenic *Neisseria* species. Like conventional medium, this medium can be used for antibiotic sensitivity testing by tube method (2) and as an adjuvant in tissue culture media (3). This medium serves the similar purpose as that of the conventional medium, i.e., with the addition of agar and sodium azide is used for the isolation of pathogenic *Streptococci*, *Neisseria* and other fastidious microorganisms from blood, dairy products (4) and clinical specimens. With added agar this medium can also be used for emulsification of cheese before isolation of *Brucella* species.

For blood culture work, aseptically add 10 ml of sterile defibrinated blood to 150 ml of sterile medium in 300 ml Erlenmeyer flask. Incubate and subculture on other media.

Methodology

Suspend 29.5 grams of powder media in 1000 ml distilled water. Add 0.1% agar, if desired. Mix thoroughly and heat to boiling to dissolve the medium completely. Dispense into tubes and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Quality Control

Physical Appearance

Light yellow coloured, may have slightly greenish tinge, homogeneous, free flowing powder.

Colour and Clarity of prepared medium

Yellow coloured, clear solution without any precipitate.

Reaction

Reaction of 2.95 % w/v aqueous solution is pH 7.3 ± 0.2 at 25°C.

pH Range

7.1-7.5

Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

| Organisms (ATCC) | Inoculum (CFU) | Growth |
|--|-----------------|-----------|
| <i>Neisseria meningitidis</i> (13090) | 10^2 - 10^3 | Good |
| <i>Staphylococcus aureus</i> (25923) | 10^2 - 10^3 | Luxuriant |
| <i>Streptococcus pneumoniae</i> (6303) | 10^2 - 10^3 | Luxuriant |
| <i>Streptococcus pyogenes</i> (19615) | 10^2 - 10^3 | Luxuriant |

Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.

Prepared Media: 2-8° in sealable plastic bags for 2-5 day.



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1. Control
2. *Neisseria meningitidis*
3. *Staphylococcus aureus*
4. *Streptococcus pyogenes*

Further Reading

1. American Public Health Association, 1976, Standard Methods for the Examination of Dairy Products, 14th ed., APHA Inc., New York.
2. MacFaddin J., 1985, Media for Isolation-Cultivation-Identification Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.
3. Ginsberg H.S. et al, 1955, Proc. Soc. Exp. Biol. Med., 89:66.
4. Newman R.W., 1950, J. Milk Food, Tech., 13 : 226.

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- User must ensure suitability of the product(s) in their application prior to use.
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