Technical Information

Brain Heart Infusion, with 6.5% NaCl, MiVeg

Product Code : VM2037

Application:- Brain Heart Infusion, with 6.5% NaCl, MiVeg is employed for the propagation of fastidious pathogenic cocci and other organisms associated with blood culture work and allied pathological investigations.

Composition

Ingredients	Gms / Litre
MiVeg peptone No. 3	10.0
MiVeg special infusion	7.50
MiVeg infusion	10.00
Dextrose	2.00
Sodium chloride	65.00
Disodium phosphate	2.00
Final pH (at 25°C)	7.4±0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Brain Heart Infusion, with 6.5% NaCl, MiVeg is prepared by using vegetable peptone inplace of animal based peptone which makes the medium BSE / TSE risks free. Rosenow (1) devised the original medium by adding brain tissue to dextrose broth. This media like the conventional media is nutritious and well buffered to support the growth of wide variety ofmicroorganisms (2, 3). By the addition of 10% defibrinated sheep blood, this becomes useful for isolation and cultivation of *Histoplasma capsulatum* (4) and other fungi. In the formulation containing 6.5% sodium chloride), the salt acts as a differential and/or selective agent by interfering with membrane permeability and osmotic and electrokinetic equilibria in salt intolerant organisms. It has been reported that the Brain Heart Infusion Broth, MiVeg with addition of 1.5% agar cause a typical haemolytic reactions when it is present in blood containing media because it contains dextrose hence should not be used for detection of haemolytic activity of Streptococci. Addition of Gentamicin and/or Chloramphenicol is recommended for selective isolation of fungi (5).

Methodology

Suspend 97.0 grams of powder media in 1000 ml purified/distilled water. Mix thoroughly. Dispense into bottles or tubes and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. For best results, the medium should be used on the day it is prepared,otherwise, it should be boiled or steamed for a fewminutes and then cooled before use.

Quality Control

Physical Appearance

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

Colour and Clarity of prepared medium

Light amber coloured, clear to slightly opalescent solution.

Reaction

Reaction of 9.7 % w/v aqueous solution pH: 7.4±0.2 at 25°C

pH range

7.2-7.6

Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 35-37°C for 24-48 hours .

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery
Neisseria meningitidis (13090)	<10 3	inhibited	0%
Streptococcus pneumoniae (6303)	<10 3	inhibited	0%
Streptococcus pyogenes (19615)	<10 3	inhibited	0%
Staphylococcus aureus (25923)	<10 3	luxuriant	>70%

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: 2-8^0 in sealable plastic bags for 2-5 days.

Further Reading

1. Rosenow, 1919, J. Dental Research, 1:205
2. Roseburg T. et al, 1944, J. Inf. Dis., 74:131.
3. Conant N.F., 1950, Diagnostic Procedures and Reagents, 3rd ed., A.P.H.A. Inc., New York.
4. Howard B., Keiser J.F., Weissfeld A., et al, 1994, Clinical and Pathogenic Microbiology, 2nd ed., Mosby Co.
5. Murray PR., Baron, Pfaller, Tenover and Yolken (Eds.), ASM, Washington, D.C. 2003, In Manual of clinical Microbiology, 8th ed.

Disclaimer :

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