

Technical Information

Brain Heart Infusion, with 0.1% Agar, MiVeg

Product Code : VM2036

Application:- Brain Heart Infusion, with 0.1% Agar, MiVeg is recommended 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	5.00
Disodium phosphate	2.50
Agar	1.00
Final pH (at 25°C)	7.4±0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Brain Heart Infusion, with 0.1% Agar, MiVeg is prepared by using vegetable peptone in place of animal based medium which makes the medium BSE / TSE risks free. Rosenow (1) devised the original medium by adding brain tissue to dextrose broth. This media is like the conventional media is nutritious and well buffered to support the growth of wide variety of microorganisms (2, 3, 4). By the addition of 10% defibrinated sheep blood, this becomes useful for isolation and cultivation of *Histoplasma capsulatum* (5) and other fungi. Sodium chloride maintains the osmotic equilibrium. The addition of 0.1% agar improves growth of microaerophilic and anaerobic microorganisms (4). It has been reported that the Brain Heart Infusion Broth, MiVeg with addition of 1.5% agar to 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.

Methodology

Suspend 38.0 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 few minutes and then cooled before use.

Quality Control

Physical Appearance

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

Gelling

Semi solid, comparable to 0.1% Agar gel.

Colour and Clarity of prepared medium

Light amber coloured, clear to slightly opalescent semi solid gel forms in tubes as butts.

Reaction

Reaction of 3.8 % 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
<i>Neisseria meningitidis</i> (13090)	<10 ³	luxuriant	>70%
<i>Streptococcus pneumoniae</i> (6303)	<10 ³	luxuriant	>70%
<i>Streptococcus pyogenes</i> (19615)	<10 ³	luxuriant	>70%
<i>Staphylococcus aureus</i> (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° in sealable plastic bags for 2-5 days.



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

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. MacFaddin J.F., 1985, Media for Isolation-Cultivation-Identification- Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.
5. Howard B., Keiser J.F., Weissfeld A., et al, 1994, Clinical and Pathogenic Microbiology, 2nd ed., Mosby Co.
6. Murray PR., Baron, Pfaller, Tenover and Tenover (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.
- The product conform solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at CDH is true and accurate
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