Technical Information

Blood Agar Base No. 2 with 1.2% Agar, MiVeg

Product Code : VM1834A

Application:- Blood Agar Base No. 2 with 1.2% Agar, MiVeg is specially devised to permit the maximum recovery of fastidious pathogenic microorganisms without interfering with their haemolytic reactions.

Composition

Ingredients	Gms / Litre
MiVeg peptone No.3	15.00
MiVeg extract No.2	2.50
Yeast extract	5.00
Sodium chloride	5.00
Agar	12.00
Final pH (at 25°C)	7.4±0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Blood Agar Base No. 2 with 1.2% Agar, MiVeg is prepared by using vegetable peptones instead of animal peptones, so the medium becomes BSE/TSE risks free. This media can be used to prepare a selective medium for *Brucella* species or *Campylobacter* species by adding antibiotic supplement selective for respective bacteria (1, 2) like conventional Blood Agar Base. In comparison to other Blood Agar Base, this medium provides enhanced growth especially for fastidious organisms. *Brucella* cultures are highly infective and must be handled with care. Prefer to incubate in 5-10% carbon dioxide atmosphere. Comparative studies of horse, rabbit and sheep blood were performed by Snavely and Brahier and it was found that sheep blood gave the clearest and most reliable colony and haemolysis characteristics at both 24 and 48 hours (3). This medium can also be used for primary isolation of *Haemophilus* species, where horse blood is used to enrich the medium. Better results can be obtained by spreading half of the horse blood agar plate with 2 drops of 10% saponin (4). Supplementation with blood (5-10%) provides additional growth factors for fastidious microorganisms and is the basis for determining haemolytic reactions. MiVeg extract No.2 and yeast extract supports enhanced growth and haemolytic reactions of fastidious organisms like *Streptococci* and *Pneumococci*. MiVeg peptone No. 3 serve as nitrogen source and sodium chloride maintains osmotic equilibrium.

Methodology

Suspend 19.75 grams of powder media in 500 ml purified/distilled water. Mix thoroughly. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 40 - 50°C and aseptically add 7% v/v sterile defibrinated blood. For *Brucella* species: Add rehydrated contents of 1 vial of Brucella Selective Supplement (MS2005) to 500 ml sterile molten base. For *Campylobacter* species : Add rehydrated contents of 1 vial of Campylobacter Supplement - I (MS2006) or Campylobacter Supplement - II (MS2007) or Campylobacter Supplement - III (MS2008) or Campylobacter Growth Supplement (MS2009) to 500 ml sterile molten base. For *Streptococci* species : Add rehydrated contents of 1 vial of Strepto Supplement (MS2031) to 500 ml sterile molten base. Mix well and pour into sterile petri plates.

Quality Control

Physical Appearance

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

Gelling

Firm, comparable with 1.2% Agar gel

Colour and Clarity of prepared medium

Basal medium yields yellow coloured clear to slightly opalescent gel, with addition of 7% v/v sterile defibrinated blood,

cherry red coloured, opaque gel forms in petri plates.

Reaction

Reaction of 3.95 % 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 18-48 hours

Organisms (ATCC)	Inoculum (CFU)	Growth w/ blood	Recovery	Haemolysis
Neisseria meningitidis (13090)	10^2 -10^3	good to luxuriant	>70%	None
Streptococcus pneumoniae (6303)	10^2 -10^3	good to luxuriant	>70%	Alpha
Streptococcus pyogenes (19615)	10^2 -10^3	good to luxuriant	>70%	Beta
Staphylococcus aureus (25923)	10^2 -10^3	good to luxuriant	>70%	Beta

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. Hunter D. and Kearns M., 1977 Brit. Vet. J., 133:486.
2. Skirrow M.B., 1977, B.M.J., ii:9.
3. Snavely and Brahier1960, Am. J. Clin. Pathol. 33:511.
4. Waterworth and Pamela M.,1955, Brit. J. Exp. Pathol. 36:186.

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
- **Central Drug House Pvt. Ltd.** reserves the right to make changes to specifications and information related to the products at any time.
- Products are not intended for human or animal diagnostic or therapeutic use but for laboratory, research or further manufacturing of diagnostic reagents extra.
- Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for in fingement of any patents. Do not use the products if it fails to meet specificatons for identity and performens parameters.