Technical Information

Columbia Blood Agar Base w/ 1% Agar, MiVeg

Product Code : VM1144A

Application:- Columbia Blood Agar Base MiVeg with 1% Agar is used as an efficient base for preparation of blood agar, chocolate agar and for various selective and identification media.

Composition

Ingredients	Gms / Litre
Special peptone	23.0
Corn starch	1.0
Sodium chloride	5.0
Agar	10.0
Final pH (at 25°C)	7.3±0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Columbia Blood Agar Base MiVeg with 1% Agar is prepared by using MiVeg special peptone which is free from BSE/TSE risks. This media is the modification of Columbia Blood Agar Base w/ 1% Agar which was originally developed by Ellner et al (1).

It contains MiVeg special peptone to which provides luxurious growth to fastidious and non fastidious organism. This media also promotes typical colonial morphology, better pigment production and more sharply defined haemolytic activity. This medium is serve as a base for preparing media containing blood and for selective media formulations in which different combinations of antimicrobial agents are used as additives. Corn starch is the energy source and also neutralizes toxic metabolites. Sheep blood permits the detection of haemolysis and also provides heme (X factor) which is required for the growth of many fastidious bacteria. This media is devoid of V factor (Nicotinamide adenine dinuellotide), so *Haemophillus influenzae* will not grow on this medium as needs both X and V factors. This media has a relatively high carbohydrate content, so beta- haemolytic *Streptococci* may exhibit a greenish haemolytic reaction which may be mistaken for alpha haemolysis therefore further confirmatory tests should be carried out for all the colonies.

Methodology

Suspend 39 grams of powder media in 1000 ml 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 45-50°C before adding heat sensitive compounds. For Blood Agar: Add 5% v/v sterile defibrinated sheep blood to sterile cool base. For Chocolate Agar: Add 10% v/v sterile defibrinated sheep blood to sterile cool base. Heat to 80°C for 10 minutes with constant agitation. The medium can be made selective by adding different antimicrobials to sterile base.

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 (Blaser - Wang, MS2006) or Campylobacter Supplement - II, (Butzler, MS2007) or Campylobacter Supplement - III (Skirrow, MS2008) or Campylobacter Growth Supplement (MS2009) or Campylobacter Selective Supplement (MS2090) or Campylobacter Supplement - VI (Butzler, MS2106) to 500 ml sterile molten base.

For *Gardnerella* species : Add rehydrated contents of 1 vial of G. Vaginalis Selective Supplement (MS2056) to 500 ml sterile molten base. For *Cocci* : Add rehydrated contents of 1 vial of Staph - Strepto Supplement (MS2030) or Strepto Supplement (MS2031) to 500 ml sterile molten base or add rehydrated contents of 1 vial of Streptococcus Selective Supplement (MS2119) to 500 ml of sterile, molten medium.

Quality Control

Physical Appearance

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

Gelling

Firm, comparable with 1.0% Agar gel

Colour and Clarity of prepared medium

Basal medium yields light amber coloured, clear to slightly opalescent gel. Addition of 5% sterile defibrinated blood to the basal medium gives cherry red opaque gel in petri plates.

Reaction

Reaction of 3.9 % w/v aqueous solution pH: 7.3 ±0.2 at 25°C

pH range

7.1-7.5

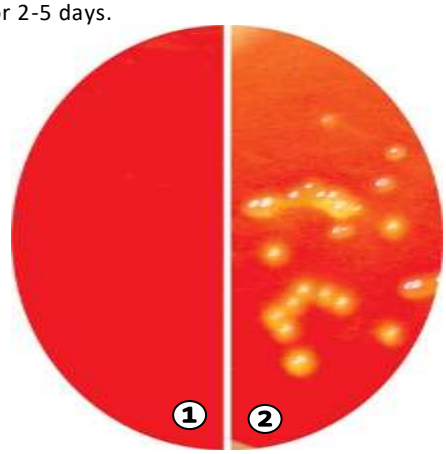
Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 35-37°C for 40-48 hours

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery	Haemolysis
Neisseria meningitidis (13090)	10^2-10^3	luxuriant	>70%	none
Staphylococcus aureus (25923)	10^2-10^3	luxuriant	>70%	beta or gama
Staphylococcus epidermidis (12228)	10^2-10^3	luxuriant	>70%	gamma
Streptococcus pneumoniae (6303)	10^2-10^3	luxuriant	>70%	alpha
Streptococcus pyogenes (19615)	10^2-10^3	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.



VM1144A Columbia Blood Agar Base, w/1% Agar MiVeg

1. Control
2. *Streptococcus pyogenes*

Further Reading

1. Ellner, Stoessel, Drakeford and Vasi, 1966, Am.J. Clin. Pathol., 45:68.

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.