

Technical Information

Columbia Blood Agar Base MiVeg

Product Code : VM1144

Application:- Columbia Blood Agar Base MiVeg is recommended 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	15.0
Final pH (at 25°C)	7.3±0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

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

This medium contains MiVeg special peptone which provides luxurious growth to fastidious and non fastidious organism. This medium also promotes typical colonial morphology, better pigmentation and more sharply defined haemolytic activity. This medium 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 dinuclotide) so Haemophilus influenza will not grow on this medium as it 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 44 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.

Quality Control

Physical Appearance

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

Gelling

Firm, comparable with 1.5% 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 4.4% w/v aqueous solution pH: 7.3 ±0.2 at 25°C

pH range

7.1-7.5

Cultural Response/Characteristics

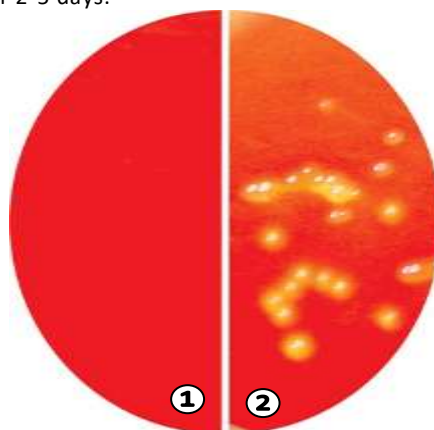
Cultural characteristics observed after an incubation at 35-37°C for 40-48 hours

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery	Haemolysis
<i>Neisseria meningitidis</i> (13090)	10 ² -10 ³	luxuriant	>70%	none
<i>Staphylococcus aureus</i> (25923)	10 ² -10 ³	luxuriant	>70%	beta or gama
<i>Staphylococcus epidermidis</i> (12228)	10 ² -10 ³	luxuriant	>70%	gamma
<i>Streptococcus pneumoniae</i> (6303)	10 ² -10 ³	luxuriant	>70%	alpha
<i>Streptococcus pyogenes</i> (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° in sealable plastic bags for 2-5 days.



VM1144 Columbia Blood Agar Base, MiVeg

1. Control

2. *Streptococcus pyogenes*

Further Reading

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



Dehydrated Culture Media
Bases / Media Supplements

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.
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