Technical Information

Chocolate No. 2 MiVeg Agar Base

Product Code : VM2548

Application:- Chocolate No. 2 MiVeg Agar Base, with supplements is used for the cultural isolation of *Neisseria* and *Haemophilus* species from a variety of clinical specimens.

Composition

Ingredients	Gms / Litre
MiVeg hydrolysate	7.500
MiVeg extract No.I	7.500
Sodium chloride	5.000
Dipotassium phosphate	4.000
Corn starch	1.000
Monopotassium phosphate	1.000
Agar	12.000
Final pH (at 25°C)	7.4±0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Chocolate No.2 MiVeg Agar Base is prepared by MiVeg hydrolysate and MiVeg extract No.1 inplace of Tryptone and Meat extract which makes it BSE/TSE risk free.

This media is a slight modification of Chocolate No.2 Agar which is used for isolation and cultivation of fastidious microorganisms especially *Neisseria* and *Haemophilus* species from a variety of clinical specimens. (1,2).

Gonococci are fastidious organisms with exacting nutritional and environmental requirements (3). The cultivation medium for gonococci should ideally be a rich nutrient base with blood, either partially lysed or completely lysed. The diagnosis and control of gonorrhoea have been greatly facilitated by improved laboratory methods for detecting, isolating and studying *N. gonorrhoeae* .

It contains MiVeg Hydrolyaste and MiVeg Extract No. 1 which supplies nitrogenous sources for growth of fastidious organisms. Corn starch neutralizes toxic fatty acids that may be released during growth. The Vitamin Supplement has necessary growth factors, vitamins, aminoacids and coenzymes. (2) Phosphates helps to maintain pH of medium whereas sodium chloride maintains osmotic balance thereby maintaining integrity of cells.

The added supplements provides necessary X factor (from Haemoglobin) and V factor (from Growth Supplement) required by the fastidious organisms (4,5).

Methodology

Suspend 19 grams of powder media in 245 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. Aseptically add equal amount of sterile 2% Haemoglobin solution MS2022) (250 ml). Aseptically add rehydrated contents of one vial of Vitamino Growth Supplement, Modified (MS2215). Mix well and pour into sterile Petri plates.

Quality Control

Physical Appearance

Cream to yellow homogeneous free flowing powder

Gelling

Firm, comparable with 1.2% Agar gel

Colour and Clarity of prepared medium

Basal medium: Light amber coloured clear to slightly opalescent gel. After addition of haemoglobin : Chocolate brown coloured opaque gel forms in Petri plates.

Reaction

Reaction of 3.8 % w/v aqueous solution pH: 7.4 ±0.2 at 25°C

pH range

7.20-7.60

Cultural Response/Characteristics

Cultural characteristics observed with added 2% haemoglobin (MS2022) and Vitamino Growth Supplement, Modified(MS2215), after an incubation at 35-37°C for 40-48 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery
Neisseria gonorrhoeae ATCC 19424	50-100	luxuriant	>=70%
Neisseria meningitidis ATCC13090	50-100	luxuriant	>=70%
Haemophilus influenzae ATCC 19418	50-100	luxuriant	>=70%
Streptococcus pneumoniae ATCC 6303	50-100	luxuriant	>=70%
Streptococcus pyogenes ATCC 19615	50-100	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.Carpenter and Morton, 1947, Proc. N.Y.State Assoc.Public Health Lab., 27:58
2.Carpenter et.al. 1949, Am.J.Syphil.Gonnorh. Veneral Dis., 33:164
3. Collee J. G., Fraser A. G., Marmion B. P., Simmons A., (Eds.), 1996, Mackie and McCartney, Practical Medical Microbiology, 14th Ed., Chruchill Livingstone
4.Martin, Billings, Hacney and Thayer. 1967. Public Health Rep, 82:361.
5.Vastine, Dawson, Hoshiwara, Yonega, Daghfous and Messadi. 1974. Appl. Microbiol. 28:688.

Disclaimer :

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