Technical Information

CHO MiVeg Medium Base

Product Code : VM1351

Application:- CHO MiVeg Medium Base is a basal medium to which carbohydrates may be added for use in fermentation studies of anaerobic bacteria.

Composition

Ingredients	Gms / Litre
MiVeg hydrolysate	15.0
Yeast extract	7.0
L-Cystine	0.25
Sodium chloride	2.5
Ascorbic acid	0.1
Sodium thioglycollate	0.5
Bromo thymol blue	0.01
Agar	0.75
Final pH (at 25°C)	7.0±0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

CHO MiVeg Medium Base is prepared by vegetable peptones inplace of the animal based peptones which makes the medium BSE/TSE risks free. This medium is the modification of CHO Medium Base. Identification of anaerobes is based on cellular morphology, colony characteristics on blood agar and biochemical tests (1). For the anaerobic microorganisms, proper collection and transport ofsuspected specimens is of pivotal importance. Exposure of the specimens to air should be minimised to the possible extent and they should be handled in the laboratory under proper atmospheric conditions.

Carbohydrate utilization patterns play a key role in identification of anaerobes. Although metabolism of anaerobes is less efficient, they require auxillary growth factors, which are supplied by MiVeg hydrolysate. Also high concentration of carbohydrate is required for their growth. Sodium thioglycollate helps in maintaining reduced atmosphere in the medium. The presence of small quantity of agar helps in maintaining anerobic condition. Sodium chloride maintains osmotic equilibrium while bromo thymol blue act as pH indicator which is included in this medium.

Methodology

Suspend 26 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. Aseptically add 6.25 ml of 10% sterile carbohydrate solution. Mix well and dispense in sterile tubes containing inverted Durham's tubes.

Quality Control

Physical Appearance

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

Colour and Clarity of prepared medium

Light green coloured, clear to slightly opalescent solution without any precipitate.

Reaction

Reaction of 2.6 % w/v aqueous solution pH: 7.0±0.2 at 25°C

pH range

6.8-7.2

Cultural Response/Characteristics

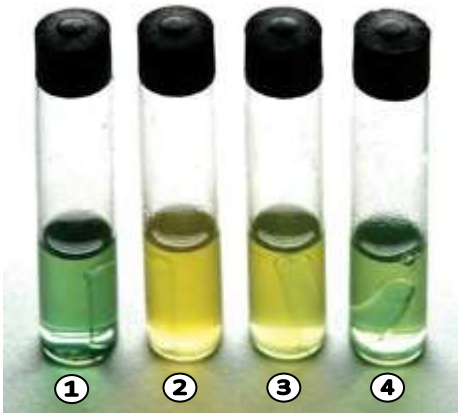
Cultural characteristics observed after an incubation at 35-37°C for upto7 days when incubated anaerobically.

Organisms (ATCC)	Growth	Fermentation w/Lactose	Fermentation w/Dextrose
Bacillus melaninogenicus (15930)	luxuriant	-	+
Bacteriodes vulgatus (8482)	luxuriant	-	-
Bacteroides fragilis (25285)	luxuriant	+	+
Clostridium botulinum (25763)	luxuriant	+	-
Clostridium perfringens (12924)	luxuriant	+	+

Key : + = positive reaction, yellow colour
- = negative reaction, no colour change

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.



VM1351 CHO MiVeg Medium Base
1. Control
2. *Clostridium perfringens*
3. *Bacteroides fragilis*
4. *Bacteriodes vulgatus*

Further Reading

1. Laboratory Methods in Anaerobic Bacteriology, 1974, CDC Laboratory Manual, U.S. Dept. HEW, Pub. No. 74-8262.

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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