Dehydrated Culture Media
Bases / Media Supplements

Technical Information

Reinforced Clostridial MiVeg Broth

Product Code : VM1443

Application:- Reinforced Clostridial MiVeg Broth is used for the cultivation and enumeration of *Clostridium* species and other anaerobes.

Composition

Ingredients	Gms / Litre
MiVeg hydrolysate	10.00
MiVeg extract	10.00
Yeast extract	3.00
Dextrose	5.00
Sodium chloride	5.00
Sodium acetate	3.00
Starch, soluble	1.00
L-Cysteine hydrochloride	0.50
Agar	0.50
Final pH (at 25°C)	6.8 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Reinforced Clostridial MiVeg Broth is prepared by adding MiVeg hydrolysate and MiVeg extract in place of Casein enzymic hydrolysate and beef extract thereby making the medium free from BSE/TSE. Reinforced Clostridial MiVeg Broth is the modification of Reinforced Clostridial Media which was formulated by Hirsch and Grinsted (1). It can be used to initiate growth from small inocula and to obtain the highest viable count of *Clostridia*. Like conventional medium, this medium can be used for diluting an inoculum of vegetative cells of *Clostridium perfringens* (2) as suggested by Barnes and Ingram or can be used in studies of spore forming anaerobes, especially *Clostridiumbutyricum* in cheese, also for the enumeration of *Clostridia* in tube dilution counts and for preparation of plates for isolation (3). Other spore forming anaerobes, *Streptococci* and *Lactobacilli* can also be grown using this medium.

MiVeg hydrolysate, yeast extract, Miveg extract and starch, supplies all the essential nutrients required for the optimum growth of *Clostridia*. Dextrose is the fermentable carbohydrate while sodium chloride maintains osmotic equilibrium of the medium. Cystine hydrochloride is the reducing agent whereas sodium acetate buffers the medium. These media can be made selective by addition of 15-20mg Polymyxin B per litre of media (1).

Methodology

Suspend 38 grams of powder media in 1000 ml distilled water. Mix well and heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 10 lbs pressure (115°C) for 15 minutes.

Quality Control

Physical Appearance

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

Colour and Clarity of prepared medium

Light yellow coloured, clear solution in tubes.

Reaction

Reaction of 3.8% w/v aqueous solution is pH 6.8 ± 0.2 at 25°C.

pH Range

6.6-7.0

Cultural Response/Characteristics

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

Organisms (ATCC)	Inoculum (CFU)	Growth
Bacteroides fragilis (23745)	10^2-10^3	good-luxuriant
Bacteroides vulgatus (8482)	10^2-10^3	good-luxuriant
Clostridium butyricum (9690)	10^2-10^3	good-luxuriant
Clostridium perfringens (13124)	10^2-10^3	good-luxuriant

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 day.

Further Reading

1. Hirsch and Grinsted, 1954, J. Dairy Res., 21:101.
2. Barnes and Ingram, 1956, J. Appl. Bact., 19:117.
3. Lewis and Angelotti (Eds.), 1964, Examination of Foods for Enteropathogenic and Indicator Bacteria, Dept. of HEW, PHS Publication, 1142, Washington.

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