

Technical Information

Differential Reinforced Clostridial MiVeg Broth

Product Code : VM1549

Application:- Differential Reinforced Clostridial MiVeg Broth is a selective medium & recommended for the cultivation of *Clostridia* from water.

Composition

Ingredients	Gms / Litre
MiVeg peptone	10.0
MiVeg extract	10.0
Yeast extract	1.5
Starch	1.0
Sodium acetate, hydrated	5.0
Glucose	1.0
L-Cysteine hydrochloride	0.5
Final pH (at 25°C)	7.2±0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Differential Reinforced Clostridial MiVeg Broth is prepared by using MiVeg peptone and MiVeg extract instead of animal based peptone & Beef extract respectively, which makes the medium BSE/TSE risks free. This media is the modification of Differential Reinforced Clostridial Medium which is based on the formulation described by Barnes and Ingram (1) and Gibbs and Freame (2) for the sulphite reducing *Clostridia* from food and for enumeration in water by multiple tube method. Differentiation is based on the ability to reduce sulphite to sulphide to form iron sulphide resulting in black colour. It contains MiVeg peptone, MiVeg extract, yeast extract, starch, sodium acetate which supplies essential nutrients for bacterial metabolism. Glucose serve as the source of energy. L-Cysteine hydrochloride is the reducing agent in the medium.

Methodology

Suspend 29 grams of powder media in 1000 ml distilled water. Mix thoroughly. Heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Just before use add 0.5 ml filter sterilized solution prepared by mixing equal volumes of 4% w/v solution of Sodium sulphite and 7% w/v Ferric citrate to 25 ml of single strength medium or 0.4 ml and 2 ml to 10 ml and 50 ml of double strength medium respectively. Mix well.

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 without any precipitate.

Reaction

Reaction of 2.9 % w/v aqueous solution pH: 7.2 ±0.2 at 25°C

pH range

7.0-7.4

Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours at 30°C for 1 week with added 4% w/v solution of Sodium sulphite and 7% w/v Ferric citrate.

Organisms (ATCC)	Growth	H ₂ S production
<i>Clostridium perfringens</i> (13124)	good - luxuriant	+
<i>Clostridium sporogenes</i> (11437)	good - luxuriant	+

Key : + = blackening of medium

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.



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1. Control
2. *Clostridium perfringens*
3. *Clostridium sporogenes*

Further Reading

1. Barnes E.M. and Ingram M., 1956, J. Appl. Bacteriol., 19(1):117.
2. Gibbs B.M. and Freame B., 1965, J. Appl. Bacteriol., 28(1):95.

Disclaimer :

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