

Technical Information

SF MiVeg Broth

Product Code : VM1297

Application:- SF (*Streptococcus faecalis*) MiVeg Broth is a selective medium used for detection and differentiation of *Enterococci* from other cocci in diagnostic work.

Composition

Ingredients	Gms / Litre
MiVeg hydrolysate	20.0
Dextrose	5.0
Dipotassium phosphate	4.0
Monopotassium phosphate	1.5
Sodium azide	0.5
Sodium chloride	5.0
Bromo cresol purple	0.032
Final pH (at 25°C)	6.9 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

SF MiVeg Broth is prepared by adding MiVeg hydrolysate in place of Casein enzymic hydrolysate thus making the medium free from BSE/TSE risks. SF MiVeg Broth is the modification of SF Broth which was prepared according to Hajna and Perry (1) formula for the detection of faecal *Streptococci* in swimming pools, water and milk samples. *Enterococci* [*Streptococci*] grow luxuriantly at 45.5°C with an acidic reaction, seen as colour change from purple to yellow. MiVeg hydrolysate supplies necessary growth nutrients. Dextrose serve as a fermentable carbohydrate. Group D *Streptococci* grows in the presence of azide and ferments glucose with acid production and lowers the pH of the media from purple to yellow. Bromo cresol purple is the pH indicator. Phosphates buffer the medium while sodium chloride maintains osmotic equilibrium. Sodium azide exhibits a bacteriostatic effect on gram-negative bacteria through its inhibitory action on enzymes in the electron transport system.

Methodology

Suspend 36 grams of powder media in 1000ml distilled water. Double strength broth is prepared by adding use 72 grams of media in 1000 ml distilled water. Mix thoroughly and heat if necessary to dissolve the medium completely. Dispense in tubes and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Warning: Sodium azide has a tendency to form explosive metal azides with plumbing materials thus it is advisable to use enough water to flush off the disposables.

Quality Control

Physical Appearance

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

Colour and Clarity of prepared medium

Purple coloured, clear solution, without any precipitate.

Reaction

Reaction of 3.6% w/v aqueous solution is pH 6.9 ± 0.2 at 25°C.

pH Range

6.7 - 7.1

Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 35-37°C for 18-48 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Colour of medium
<i>Enterococcus faecalis</i> (29212)	10^2 - 10^3	luxuriant	yellow
<i>Escherichia coli</i> (25922)	10^2 - 10^3	inhibited	purple
<i>Streptococcus bovis</i> (33317)	10^2 - 10^3	inhibited	purple
<i>Streptococcus pyogenes</i> (19615)	10^2 - 10^3	inhibited	purple

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 day.



VM1297 SF MiVeg Broth

1. Control
2. *Escherichia coli*
3. *Streptococcus pyogenes*
4. *Enterococcus faecalis*

Further Reading

1. Hajna and Perry, 1943, Am. J. Publ. Hlth., 33:550.

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.
- Products are not intended for human or animal diagnostic or therapeutic use but for laboratory, research or further manufacturing of diagnostic reagents extra.
- Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents. Do not use the products if it fails to meet specifications for identity and performance parameters.