SF HiVeg™ Broth MV297

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

Composition ** :

Ingredients	Grams/Litre
HiVeg 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.

Directions :

Suspend 36 grams in 1000 ml distilled water. For double strength broth use 72 grams in 1000 ml distilled water. 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. It is advisable to use enough water to flush off the disposables.

Principle and Interpretation :

SF HiVeg Broth is prepared by using HiVeg hydrolysate in place of Casein enzymic hydrolysate which makes the medium free of BSE/TSE risks. SF HiVeg Broth is the modification of SF Broth which was prepared according to the formula of Hajna and Perry (1) 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.
HiVeg hydrolysate provides essential growth nutrients. Dextrose is the fermentable carbohydrate. Group D *Streptococci* grows in the presence of azide and ferments glucose. This produces acid & thus due to pH drop, colour of the media changes 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.

MV297 SF HiVeg Broth
1. Control
2. *Escherichia coli*
3. *Streptococcus pyogenes*
4. *Enterococcus faecalis*

Product Profile :		
Vegetable based (Code MV)◉		**Animal based** (Code M)
MV297 HiVeg hydrolysate		**M297** Casein enzymic hydrolysate
Recommended for	:	Detection and differentiation of *Enterococci* from other cocci in diagnostic work.
Reconstitution	:	36.0 g/l
Quantity on preparation (500g)	:	13.88 L
pH (25°C)	:	6.9 ± 0.2
Supplement	:	None
Sterilization	:	121°C / 15 minutes
Storage : Dry Medium - Below 30°C, Prepared Medium 2 - 8°C.		

Quality Control :

Appearance of powder
Yellow coloured, may have slightly greenish tinge, homogeneous, free flowing powder.
Colour and Clarity
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
Cultural Response
Cultural characteristics observed after an incubation at 35-37°C for 18 - 48 hours.

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

References :

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

◉ Prepared from GMO free Vegetable proteins replacing Animal based peptones. Freedom from BSE/TSE worries.

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