Streptococcus Selection HiVeg™ Agar / Broth MV304/MV303

Streptococcus Selection HiVeg Agar / Broth is recommended for selective isolation, cultivation and enumeration of all types of *Streptococci*, including group A beta haemolytic strains.

Composition ** :

Ingredients	MV304 Grams/Litre	MV303 Grams/Litre
HiVeg hydrolysate	15.0	15.0
Papaic digest of soyabean meal	5.0	5.0
Dextrose	5.0	5.0
Sodium chloride	4.0	4.0
Sodium citrate	1.0	1.0
Sodium sulphite	0.2	0.2
L-Cystine	0.2	0.2
Sodium azide	0.2	0.2
Crystal violet	0.0002	0.0002
Agar	15.0	—

Final pH (at 25°C) 7.4 ± 0.2
** Formula adjusted, standardized to suit performance parameters.

Directions :

Suspend 45.6 grams of MV304 and 30.6 grams of MV303 in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Autoclaving is not required if medium is to be used on the same day. If storage is desired, sterilize by autoclaving at 12 lbs pressure (118°C) for 15 minutes. Avoid overheating.
Caution : Sodium azide has a tendency to form explosive metal-azide with plumbing material. It is advisable to use enough water to flush off the disposable.

Principle and Interpretation :

Streptococcus Selection HiVeg Agar/Broth is prepared by using HiVeg hydrolysate in place of Casein enzymic hydrolysate, thus making the medium BSE/TSE risks free. These media are the modifications of Streptococcus Selection Agar / Broth which is based on the suggestion of Pike (1), for the selective isolation of *Streptococci* from various materials, specially those which are heavily contaminated with accompanying microbial flora (2). Streptococcus Selection HiVeg Agar/Broth media like the conventional media have the ability of recovering group A *β*-haemolytic *Streptococci*.
HiVeg hydrolysate, Papaic digest of soyabean meal, dextrose and salts provide nutrients essential for the growth of *Streptococci*. L-Cystine provides reducing environment for growth of *Streptococci*. Sodium azide, sodium sulphite inhibits gram-negative rods and the crystal violet suppresses *Staphylococci*. However, *Streptococci* are not affected by these inhibitors at these concentrations. Due to this reason, these media are useful in studies of *Streptococcal* flora from nutritional, dental and epidemiological research. Growth of coliforms, *Proteus*, *Pseudomonas* and *Bacillus* species is markedly suppressed on this media. However, some strains of *Staphylococci* and *Pneumococci* may grow on these media. All *Streptococcal* colonies must be confirmed for identification.

Product Profile :

Vegetable based (Code MV)◉	Animal based (Code M)
MV304/MV303 HiVeg hydrolysate	**M304/M303** Casein enzymic hydrolysate

Recommended for	:	Selective isolation & enumeration of all types of *Streptococci,* including group A beta hemolytic strains.
Reconstitution	:	(MV304) : 45.6 g/l
	:	(MV303) : 30.6 g/l
Quantity on preparation (500g)	:	(MV304) : 10.96 L
	:	(MV303) : 16.33 L
pH (25°C)	:	7.4 ± 0.2
Supplement	:	None
Sterilization	:	118°C / 15 minutes or Boiling

Storage : Store below 30°C and the autoclaved medium at 2 - 8°C.

Quality Control :

Appearance of powder
Light yellow coloured, may have slightly greenish tinge, homogeneous, free flowing powder.
Gelling
Firm, comparable with 1.5% Agar gel of MV304.
Colour and Clarity
Light to medium amber coloured, clear to slightly opalescent gel forms in petri plates, clear solution in tubes.
Reaction
Reaction of 4.56% w/v of MV304 or 3.06% w/v of MV303 aqueous solution is pH 7.4 ± 0.2 at 25°C.
Cultural Response
Cultural characteristics observed after incubation at 35-37°C for 18–24 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery
Streptococcus pyogenes (19615)	10^2-10^3	luxuriant	> 50%
Enterococcus faecalis (29212)	10^2-10^3	luxuriant	> 50%
Staphylococcus aureus (25923)	10^2-10^3	none-poor	< 10%
Escherichia coli (25922)	10^2-10^3	none-poor	< 10%
Bacillus subtilis (6633)	10^2-10^3	inhibited	0%
Pseudomonas aeruginosa (27853)	10^2-10^3	inhibited	0%

References :

1. Pike R.M., 1945, Am. J. Hyg., 41:211.
2. Murray PR, Baron, Pfaller, and Yolken (Eds.), 2003, In Manual of Clinical Microbiology, 8th ed., ASM, Washington, D.C.

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