

Technical Information

Streptococcus Selection MiVeg Broth

Product Code : VM1303

Application:- Streptococcus Selection MiVeg Broth is recommended for selective isolation, cultivation and enumeration of all types of Streptococci, including group A beta haemolytic strains.

Composition**

Ingredients	Gms / Litre
MiVeg hydrolysate	15.000
Papaic digest of soyabean meal	5.000
Dextrose	5.000
Sodium chloride	4.000
Sodium citrate	1.000
Sodium sulphite	0.200
L-Cystine	0.200
Sodium azide	0.200
Crystal violet	0.0002
Final pH (at 25°C)	7.4 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Streptococcus Selection MiVeg Broth is prepared by adding MiVeg Hydrolysate in place of Casein enzymic hydrolysate, thus making the medium free from BSE/TSE risks. This medium is the modification of Streptococcus Selection Broth which is formulated as suggested by Pike (1), for the selective isolation of *Streptococci*. Like conventional medium, this medium can also recover group A β -haemolytic *Streptococci*. MiVeg hydrolysate, papaic digest of soyabean meal, dextrose and salts supplies essential nutrients required for the growth of *Streptococci*. L-Cystine maintains the reducing environment for growth of *Streptococci*. Sodium azide, sodium sulphite inhibits gram-negative rods and crystal violet suppresses *Staphylococci*. However, *Streptococci* are not affected by these inhibitors at these concentrations. Due to this reason, this medium is useful in studies of *Streptococcal* flora. Growth of coliforms, *Proteus*, *Pseudomonas* and *Bacillus* species is markedly suppressed in this medium. However, certain strains of *Staphylococci* and *Pneumococci* may grow on this medium. All Streptococcal colonies must be further confirmed for identification.

Methodology

Suspend 30.6 grams of powder media in 1000 ml distilled water. Mix thoroughly and heat to boiling to dissolve the medium completely. Do not autoclave the medium if it is being 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 materials, thus it is advisable to use enough water to flush off the disposable.

Quality Control

Physical Appearance

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

Colour and Clarity of prepared medium

Light to medium amber coloured clear solution in tubes.

Reaction

Reaction of 3.06 % w/v aqueous solution is pH 7.4 ± 0.2 at 25°C.

pH Range

7.2-7.6

Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth
<i>Streptococcus pyogenes</i> (19615)	10^2 - 10^3	Luxuriant
<i>Enterococcus faecalis</i> (29212)	10^2 - 10^3	Luxuriant
<i>Staphylococcus aureus</i> (25923)	10^2 - 10^3	None-poor
<i>Escherichia coli</i> (25922)	10^2 - 10^3	None-poor
<i>Bacillus subtilis</i> (6633)	10^2 - 10^3	Inhibited
<i>Pseudomonas aeruginosa</i> (27853)	10^2 - 10^3	Inhibited

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.

Further Reading

1. Pike R.M., 1945, Am. J. Hyg., 41:211.

2. Murray PR, Baron, Pfaller, and Tenover (Eds.), 2003, In Manual of Clinical Microbiology, 8th ed., ASM, Washington, D.C.

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