Technical Information

Streptococcus Selection MiVeg Agar

Product Code : VM1304

Application:- Streptococcus Selection MiVeg Agar 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
Agar	15.0
Final pH (at 25°C)	7.4 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Streptococcus Selection MiVeg Agar 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 Agar which was formulated as suggested by Pike (1), for the selective isolation of *Streptococci.* Like conventional medium, this medium can also recover group A ß-haemolytic *Streptococci*. MiVeg hydrolysate, papaic digest of soyabean meal, dextrose and salts supplies all the 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. Growth of coliforms, *Proteus, Pseudomonas* and *Bacillus* species is markedly suppressed on 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 45.6 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.
Gelling
Firm, comparable with 1.5% Agar gel.

Colour and Clarity of prepared medium
Light to medium amber clear to slightly opalescent gel forms in petri plates
Reaction
Reaction of 4.56% 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 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%

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: 2-8^0 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 Yolken (Eds.), 2003, In Manual of Clinical Microbiology, 8th ed., ASM, Washington, D.C.

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