Technical Information

Phenylethyl Alcohol MiVeg Agar

Product Code : VM1269

Application:- Phenylethyl Alcohol MiVeg Agar is a selective medium used for isolation of *Staphylococci* and *Streptococci.*

Composition

Ingredients	Gms / Litre
MiVeg hydrolysate	15.0
Papaic digest of soyabean meal	5.0
Sodium chloride	5.0
Phenylethyl alcohol	2.5
Agar	15.0
Final pH (at 25°C)	7.3 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Phenylethyl Alcohol MiVeg Agar is prepared by adding vegetables peptones in place of animal based peptone thereby making the medium BSE/TSE risks free. This medium is the modification of Phenylethyl Alcohol Agar, which is a selective medium, used for the isolation of gram- positive organisms especially *Staphylococci* and *Streptococci*. Phenylethanol selectively inhibits gram-negative organisms thereby favours the growth of gram-positive organisms(1). Phenylethyl alcohol inhibits their DNA synthesis (2). It particularly inhibits *Proteus* species in specimens containing a mixed bacterial population.

MiVeg hydrolysate and papaic digest of soyabean meal supply nitrogen, carbon, sulfur and trace elements to support the growth of organisms. Addition of sheep blood supplies many growth factors. But this medium should not be used for determination of haemolytical reaction since atypical reaction may be observed. Sodium chloride maintains osmotic equilibrium.

Methodology

Suspend 42.5 grams of powder media in 1000 ml distilled water. Mix thoroughly and heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Add 5% v/v sterile defibrinated blood to the sterile molten medium cooled to 45°C to prepare blood agar. Mix well before pouring into sterile petri plates.

Quality Control

Physical Appearance

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

Gelling

Firm, comparable with 1.5% Agar gel.

Colour and Clarity of prepared medium

Light amber coloured slightly opalescent gel, with addition of 5% v/v sterile defibrinated blood, cherry red coloured opaque gel forms in petri plates.

Reaction

Reaction of 4.25% w/v aqueous solution is pH 7.3 ± 0.2 at 25°C.

pH Range

7.1-7.5

Cultural Response/Characteristics

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

Organisms (ATCC)	Inoculum (CFU)	Growth	Colour of colony
Enterococcus faecalis (29212)	10^2-10^3	good-luxuriant	blue-grey
Escherichia coli (25922)	10^2-10^3	none-poor	–
Proteus mirabilis (25933)	10^2-10^3	none-poor	–
Salmonella serotype Typhi (6539)	10^2-10^3	none-fair	–
Staphylococcus aureus (25923)	10^2-10^3	good-luxuriant	white to yellow

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. Lilley and Brewer, 1953, J. Am. Pharm. Assoc., 42:6.
2. Dowell, Hill and Altemeier, 1964, J. Bact., 88:1811.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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