Technical Information

Slanetz and Bartley MiVeg Medium

Product Code : VM1612

Application:- Slanetz and Bartley MiVeg Medium is recommended for detection and enumeration of faecal *Entercocci* by membrane filtration technique.

Composition

Ingredients	Gms / Litre
MiVeg hydrolysate No. 1	20.0
Yeast extract	5.0
Dextrose	2.0
Disodium phosphate	4.0
Sodium azide	0.4
2,3,5-Triphenyl tetrazolium chloride	0.1
Agar	15.0
Final pH (at 25°C)	7.2 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Slanetz and Bartley MiVeg Medium is prepared by adding vegetable peptones in place of animal based peptones thus making the medium free from BSE/TSE risks. Slanetz and Bartley MiVeg Medium is the modification of Slanetz and Bartley Medium originally devised by Slanetz and Bartley (1) for the detection and enumeration of *Enterococci* by membrane filtration technique. Like conventional medium, this medium can be also used as a direct plating medium (2, 3).
This medium is highly selective for *Enterococci*. Sodium azide inhibits gram-negative organisms. Triphenyl Tetrazolium Chloride (TTC) is reduced to insoluble formazan inside the bacterial cell forming dark red-coloured colonies. On incubation at higher temperature (44-45°C), all red or maroon colonies can be considered as presumptive *Enterococci* (4,5).
Water is filtered through a membrane filter which is then placed on the surface of the Slanetz and Bartley MiVeg Medium plates and incubated at 35°C for 4 hours and then at 44-45°C for 44-48 hours. Red or maroon colonies are counted as *Enterococci*. Although incubation at 35°C yields a higher count, it allows the growth of organism which do not conform to the definition of *Enterococci*. Incubation at 44-45°C has a selective effect and produces fewer false - positives. The preliminary incubation at 35°C helps for the recovery of stressed organisms. Not all the species reduce TTC, hence pale colonies should also be considered. Food samples are homogenized and diluted with physiological saline so as to give 15-150 colonies on each petri plate which are then spreaded on agar surface. Incubate at 35°C for 48 hours. Pink or dark red colonies with a narrow whitish border are counted (3).

Methodology

Suspend 46.5 grams of powder media in 1000 ml distilled water. Mix thoroughly and heat to boiling to dissolve the medium completely. DO NOT AUTOCLAVE OR OVERHEAT as excessive heating is detrimental to the medium.

Warning: Sodium azide has a tendency to form explosive metal-azides with plumbing materials thus it is advisable to use enough water to flush off the disposables.

Quality Control

Physical Appearance

Light 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 yellow coloured, slightly opalescent gel forms in petri plates.

Reaction

Reaction of 4.65% w/v aqueous solution is pH 7.2 ± 0.2 at 25°C.

pH Range

7.0-7.4

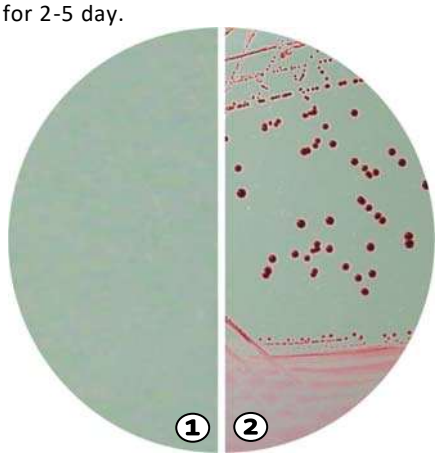
Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 44-45°C for 44-48 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery	Colour of colony
Enterococcus faecalis (29212)	10^2-10^3	luxuriant	>50%	red or maroon
Escherichia coli (25922)	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.



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1. Control
2. *Enterococcus faecalis*

Further Reading

1. Slanetz L. W. and Bartley C.H., 1957, J. Bact., 74:591.
2. Burkwall M.K. and Hartman P.A., 1964, Appl. Microbiol., 12:18.
3. Nordic Committee on Food Analysis, 1968, Leaflet 68.
4. Taylor E.W. and Burman N.P., 1964, J. Appl. Bact., 27:294.
5. Mead G.C., 1966, Proc. Soc. Wat. Treat. Exam., 15:207.

Disclaimer :

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