Technical Information

Bile Esculin Azide MiVeg Agar

Product Code :VM1493

Application:- Bile Esculin Azide MiVeg Agar is a selective media, used especially for isolation and presumptive identification of faecal *Streptococci*.

Composition

Ingredients	Gms / Litre
MiVeg hydrolysate	20.0
MiVeg extract	5.0
MiVeg peptone No. 3	5.0
Synthetic detergent No. II	5.0
Esculin	1.0
Ferric ammonium citrate	0.5
Sodium chloride	5.0
Sodium azide	0.15
Agar	15.0
Final pH (at 25°C)	7.1±0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Bile Esculin Azide MiVeg Agar is prepared by using vegetable peptones thereby making the media BSE/TSE risk free. Bile Esculin Agar was formulated by Swan (1) and evaluated by Facklam and Moody (2). Bile Esculin Azide Agar is modification of Bile Esculin Agar as per Isenberg (3). This medium is the modification of Bile Esculin Azide Agar. This medium is selective and provides rapid growth of Group D *Streptococci*. *Enterococci* and group D *Streptococci* hydrolyze the esculin to esculetin and dextrose. Esculetin reacts with an iron salt, ferric ammonium citrate, to from dark brown-black complex.

This media contains highly nutritious compounds like MiVeg hydrolysate, MiVeg peptone No. 3 and MiVeg extract which provides all nutrients required for growth. Sodium azide inhibits growth of gram-negative organisms and permits the cultivation of faecal *Streptococci*. Esculin hydrolysis permits isolation and identification of group D *Streptococci* in 24 hours.

Methodology

Suspend 56.65 grams of powder media in 1000 ml distilled water. Mix thoroughly. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Warning: Sodium azide has a tendency to form explosive metal azides with plumbing materials. 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

Medium amber coloured, clear to slightly opalescent gel with a bluish tinge forms in petri plates.

Reaction

Reaction of 5.67 % w/v aqueous solution pH: 7.1±0.2 at 25°C

pH range

pH

6.9-7.3

Cultural Response/Characteristics

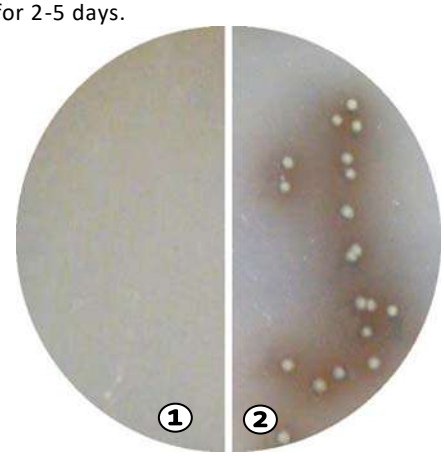
Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery	Esculin hydrolysis
Enterococcus faecalis ATCC 29212	10^2-10^3	luxuriant	<50%	+
Escherichia coli ATCC 25922	10^2-10^3	inhibited	0%	-
Proteus mirabilis ATCC 25933	10^2-10^3	good	<30%	-
S. pyogenes ATCC 19615	10^2-10^3	None-poor	<10%	-
Staphylococcus aureus ATCC 25923	10^2-10^3	good	<30%	-

Key : + = blackening of medium
- = no change

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 days.



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1. *Control*
2. *Enterococcus faecalis*

Further Reading

1. Swan, 1954, J. Clin. Pathol., 7:160.
2. Facklam and Moody, 1970, Appl. Microbiol., 20:245.
3. Isenberg, 1970, Clin. Lab. Forum, July.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conform solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate
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