

Technical Information

Pfizer Selective Enterococcus MiVeg Agar

Product Code : VM1787

Application:- Pfizer Selective Enterococcus MiVeg Agar is used for selective isolation and cultivation of *Enterococci*.

Composition

Ingredients	Gms / Litre
MiVeg hydrolysate	21.0
MiVeg peptone	6.0
Yeast extract	5.0
Synthetic detergent	3.0
Sodium chloride	5.0
Sodium citrate	1.0
Esculin	1.0
Ferric ammonium citrate	0.5
Sodium azide	0.25
Agar	15.0
Final pH (at 25°C)	7.1 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Pfizer Selective Enterococcus MiVeg Agar is prepared by adding MiVeg hydrolysate and MiVeg peptone in place of Casein enzymic hydrolysate and Peptic digest of animal tissue thereby making the medium BSE/TSE risks free. Pfizer Selective Enterococcus MiVeg Agar is the modification of Pfizer selective Enterococcus agar which is used for selective isolation and cultivation of *Enterococci*. Rochaix first noted the importance of esculin hydrolysis in identifying *Enterococci* as other *Streptococci* fail to do so (1). Isenberg used sodium azide in the medium to inhibit gram negative organisms (2). Synthetic detergent and sodium azide inhibit gram-positive (except *Enterococci*) and gram-negative bacteria respectively.

MiVeg hydrolysate, MiVeg peptone and yeast extract supplies all the essential growth nutrients like nitrogenous compounds, carbon, sulphur, vitamin B complex and trace ingredients for the growth of *Enterococci*. Esculin, is hydrolyzed by *Enterococci* to esculetin and dextrose. Esculetin reacts with ferric ammonium citrate to form a dark brown to black coloured complex (3).

Methodology

Suspend 58 grams of powder media in 1000 ml distilled water. Mix thoroughly and heat to boiling to dissolve the medium completely. Dispense as desired and 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 thus it is advisable to use enough water to flush off the disposables.

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

Reaction

Reaction of 5.8% w/v aqueous solution is pH 7.1 \pm 0.2 at 25°C.

pH Range

6.9 - 7.3

Cultural Response/Characteristics

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

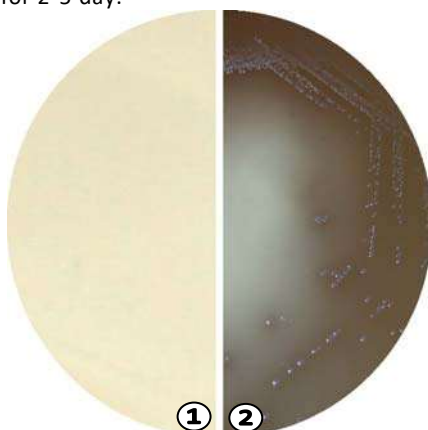
Organisms (ATCC)	Inoculum (CFU)	Growth	Esculin Hydrolysis
<i>Enterobacter aerogenes</i> (13048)	10 ² -10 ³	inhibited	–
<i>Enterococcus faecalis</i> (29212)	10 ² -10 ³	luxuriant	+
<i>Escherichia coli</i> (25922)	10 ² -10 ³	inhibited	–
<i>Staphylococcus aureus</i> (25923)	10 ² -10 ³	fair-good	–

Key : + = blackening around the colony.

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.



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1. Control
2. *Enterococcus faecalis*

Further Reading

1. Rochaix, 1924, C.R. Soc. Biol., 90 : 771.
2. Isenberg, Goldberg and Sampson, 1970, Appl. Microbiol., 20 : 433.
3. MacFaddin J.F., 2000 (ed), Biochemical Tests for Identification of Medical Bacteria, 3rd edition, Lippincott Williams and Wilkins, New York

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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