Technical Information

Peptone Iron MiVeg Agar

Product Code : VM1440

Application:- Peptone Iron MiVeg Agar is used for detection of hydrogen sulfide (H_2S) production by microorganisms.

Composition

Ingredients	Gms / Litre
MiVeg peptone	15.0
MiVeg peptone No. 3	5.0
Ferric ammonium citrate	0.5
Sodium glycerophosphate	1.0
Sodium thiosulphate	0.08
Agar	15.0
Final pH (at 25°C)	6.7±0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Peptone Iron MiVeg Agar is prepared by adding MiVeg peptone and MiVeg peptone No.3 in place of Peptic digest of animal tissue & Proteose Peptone thereby making the medium free from BSE/TSE risks. Peptone Iron MiVeg Agar is the modification of formulation described by Levine et al (1,2). H_2S production can be detected by incorporating a sulfur source & an H_2S indicator system in the medium. Sodium thiosulphate serve as a source of sulfur & ferric ammonium citrate as the H_2S indicator in the medium. This medium is helpful in differentiating the strains which are Voges-Proskauer negative, methyl red positive and citrate positive from the other strains of *Enterobacteriaceae* family. Ferric ammonium citrate is a better hydrogen sulphide indicator as compared to lead acetate, as it gives earlier and clearer results.

MiVeg peptone and MiVeg peptone No.3 provide nitrogenous compounds, sulphur and trace elements. Sodium thiosulphate and ferric ammonium citrate forms the hydrogen sulphide detecting system. Sodium glycerophosphate buffers the medium.

Methodology

Suspend 36.58 grams of powder media in 1000 ml distilled water. Mix thoroughly & heat to boiling to dissolve the medium completely. Dispense in test tubes and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool the tubed medium in an upright position.

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 forms in tubes.

Reaction

Reaction of 3.66 % w/v aqueous solution pH: 6.7 ±0.2 at 25°C

pH range

6.5-6.9

Cultural Response/Characteristics

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

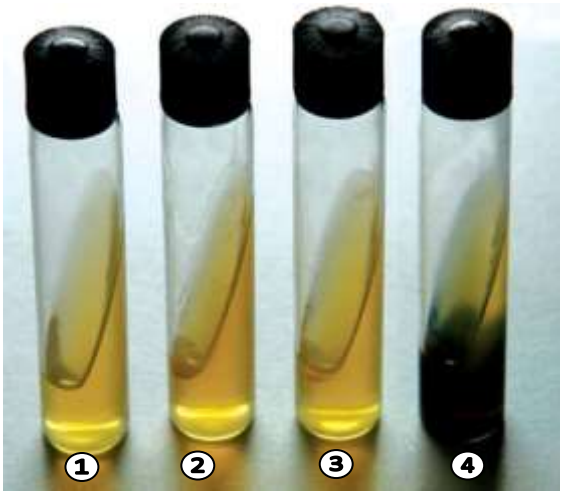
Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery	H_2S production

Enterobacter aerogenes (13048)	10^2-10^3	luxuriant	>70%	-
Escherichia coli (25922)	10^2-10^3	luxuriant	>70%	-
Salmonella serotype Typhi (6539)	10^2-10^3	luxuriant	>70%	+
Salmonella serotype Enteritidis (13076)	10^2-10^3	luxuriant	>70%	+

Key : + = blackening of the medium
- = no colour 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.



VM1440 Peptone Iron MiVeg Agar

1. Control
2. *Enterobacter aerogenes*
3. *Escherichia coli*
4. *Salmonella* serotype Enteritidis

Further Reading

1. Levine et al, 1934, Am. J. Publ. Health, 24:505.
2. Levine et al, 1932 Proc. Soc. Exp. Biol. Med. 29 :1022.

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
- **Central Drug House Pvt. Ltd.** reserves the right to make changes to specifications and information related to the products at any time.
- Products are not intended for human or animal diagnostic or therapeutic use but for laboratory, research or further manufacturing of diagnostic reagents extra.
- Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for in fingement of any patents. Do not use the products if it fails to meet specificatons for identity and performens parameters.