

Technical Information

Liver Meat Infusion MiVeg Agar

Product Code : VM2206

Application:- Liver Meat Infusion MiVeg Agar is recommended for the enumeration of sulphite reducing *Clostridia* and *Clostridium perfringens* in water and milk.

Composition

| Ingredients | Gms / Litre |
|-------------------------|-------------|
| MiVeg infusion No.2 | 20.00 |
| Dextrose | 0.75 |
| Starch | 0.75 |
| Sodium sulphite | 1.20 |
| Ferric ammonium citrate | 0.50 |
| Sodium carbonate | 0.67 |
| Agar | 11.00 |
| Final pH (at 25°C) | 7.6 ± 0.2 |

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Liver Meat Infusion MiVeg Agar is prepared by adding vegetable peptones in place of animal based peptones thereby making the medium free from BSE/TSE risks. MiVeg infusion No.2 in the medium supplies necessary growth nutrients required by the organisms. It also provides adequate degree of anaerobiosis thereby allows strict and fastidious anaerobes to grow well. *Clostridium* species reduce sulphite present in the medium to hydrogen sulphide (H₂S) which is indicated by blackening due to the presence of iron salt. The agar medium is inoculated either by pour plate method or by surface spreading methods.

Methodology

Suspend 34.87 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.

Quality Control

Physical Appearance

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

Gelling

Firm, comparable with 1.1% Agar gel.

Colour and Clarity of prepared medium

Light amber coloured, clear to slightly opalescent gel forms in petri plates.

Reaction

Reaction of 3.4% w/v aqueous solution is pH 7.6 ± 0.2 at 25°C.

pH Range

7.4 - 7.8

Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 35-37°C for 24-48 hours.

| Organisms (ATCC) | Inoculum (CFU) | Growth | Recovery | H ₂ S production |
|--|----------------------------------|-----------|----------|-----------------------------|
| <i>Clostridium perfringens</i> (12924) | 10 ² -10 ³ | luxuriant | >70% | + |
| <i>Clostridium tetani</i> (10779) | 10 ² -10 ³ | luxuriant | >70% | + |
| <i>Clostridium botulinum</i> (25763) | 10 ² -10 ³ | luxuriant | >70% | + |
| <i>Escherichia coli</i> (25922) | 10 ² -10 ³ | luxuriant | >70% | — |
| <i>Proteus mirabilis</i> (25933) | 10 ² -10 ³ | luxuriant | >70% | -/weak |
| <i>Bacteroides vulgatus</i> (8482) | 10 ² -10 ³ | luxuriant | >70% | — |

Key : + = blackening of the medium

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.

Further Reading

1. Alcamo E. I. , 2001, Fundamentals of Microbiology, 6th Ed., Jones and Bartlett Publishers

Disclaimer :

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