

Technical Information

Egg Yolk Agar Base, MiVeg

Product Code : VM1808

Application:- Egg Yolk Agar Base, MiVeg is used for isolation and identification of *Clostridia* and other anaerobic microorganisms.

Composition**

| Ingredients | Grams/Litre |
|-------------------------|-------------|
| MiVeg peptone No. 3 | 40.0 |
| Disodium phosphate | 5.0 |
| Monopotassium phosphate | 1.0 |
| Sodium chloride | 2.0 |
| Magnesium sulphate | 0.1 |
| Glucose | 2.0 |
| Ferric pyrophosphate | 0.005 |
| Agar | 25.0 |
| Final pH (at 25°C) | 7.6 ± 0.2 |

** Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

This medium is prepared by incorporating MiVeg peptone No.3 in place of Proteose peptone thus making it free from BSE/TSE risks. MiVeg peptone No. 3 provides the nitrogenous sources, glucose serves the energy source. Ferric pyrophosphate improves the growth of anaerobic microorganisms. An egg yolk suspension is added to detect the production of lecithinase, lipase and proteolytic activity. Lecithinase produced by bacteria acts on lecithin in egg yolk resulting in formation of a zone of insoluble precipitate in the medium surrounding the bacterial colonies (1). Lipolytic bacterial colony is surrounded by iridescent zone while proteolytic colonies are surrounded by a clear zone (2). Since lipase reaction may be delayed, plates should be kept upto 7 days before confirming as negative.

Methodology

Suspend 75 grams of powder media in 900 ml distilled water. Mix thoroughly. Heat to boiling to dissolve the medium completely. Dispense in 90 ml amounts and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 50-55°C and add 10 ml of sterile egg yolk emulsion (MS2045) per 90 ml of medium. Mix well and pour into sterile plates.

Quality Control

Physical Appearance

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

Gelling

Firm, comparable with 2.5% Agar gel.

Colour and Clarity of prepared medium

Basal medium yields slightly opalescent medium amber coloured gel. Addition of Egg Yolk Emulsion (MS2045) yields opaque, yellow coloured gel in petri plates.

Reaction

Reaction of 7.5 % w/v aqueous solution of the medium at 25°C pH 7.6 ± 0.2.

pH range

7.4-7.8



Dehydrated Culture Media
Bases / Media Supplements

Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 35-37°C for 48-72 hours, when incubated anaerobically.

| Organisms (ATCC) | Inoculum (CFU) | Growth | Recovery | Lecithinase | Protease | Lipase |
|--|----------------------------------|-----------------|----------|-------------|----------|--------|
| <i>Bacteroides fragilis</i> (25285) | 10 ² -10 ³ | good- luxuriant | >50% | - | - | - |
| <i>Clostridium botulinum</i> (25763) | 10 ² -10 ³ | good- luxuriant | >50% | - | + | - |
| <i>Clostridium butyricum</i> (9690) | 10 ² -10 ³ | good- luxuriant | >50% | - | + | - |
| <i>Clostridium perfringens</i> (12924) | 10 ² -10 ³ | good- luxuriant | >50% | + | - | - |
| <i>Clostridium sporogenes</i> (11437) | 10 ² -10 ³ | good- luxuriant | >50% | - | + | + |

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 days

Further Reading

1. Finegold and Baron, 1986, Bailey and Scott's Diagnostic Microbiology, 7th ed., The C.V. Mosby Company, St. Louis.
2. Murray PR, Baron, Pfaller, Tenover and Tenover (Eds.), 2003, In Manual of Clinical Microbiology, 8th ed., ASM, Washington, D.C.

Disclaimer

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