Dehydrated Culture Media
Bases / Media Supplements

# Technical Information

## Heart Infusion Broth, MiVeg

## Product Code : VM1170

**Application:-** Heart Infusion Broth, MiVeg is used for general laboratory purpose for the cultivation of many pathogenic bacteria.

## Composition

| Ingredients | Gms / Litre |
|---|---|
| MiVeg infusion | 10.00 |
| MiVeg hydrolysate No.1 | 10.00 |
| Sodium chloride | 5.00 |
| Final pH (at 25°C) | 7.4 ± 0.2 |

** Formula adjusted, standardized to suit performance parameters.

## Principle & Interpretation

Heart Infusion Broth, MiVeg is prepared by adding MiVeg infusion and MiVeg hydrolysate No.1 which are free of BSE/TSE risks. This medium is widely used for the cultivation of many pathogenic bacteria. A liquid medium containing an infusion of meat was one of the first media used for the cultivation of bacteria. Many modifications have been done since then. The growth factors were described by Lloyd (2) and Cole and Lloyd (3). Huntoon showed that highly pathogenic microorganisms as *Meningococci* and *Pneumococci* grow in infusion medium without enrichment (4). The Heart Infusion Broth, MiVeg is equivalent to these media by replacing animal based peptone with vegetable peptone. MiVeg hydrolysate No. 1 and Miveg infusion supplies essential nutritional requirements. Heart Infusion Broth, MiVeg can be modified by adding dextrose, blood or other ingredients for use in variety of purposes. The medium can be used for the cultivation of some anaerobes by addition of 0.1 – 0.2% . Addition of 65 g/l of sodium chloride will aid in differentiating *Enterocooci* from other streptococci, as the *Enterococci* grow in presence of high salt while other *Streptococci* as pyogenic viridians and lactic are unable to grow.

## Methodology

Suspend 25.0 grams of powder media in 1000ml 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. If desired 5% sterile defibrinated blood may be added. Mix well and pour into sterile tubes.

## Quality Control

**Physical Appearance**

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

**Colour and Clarity of prepared medium**

Basal medium yields light yellow colour. With the addition of blood, cherry red coloured opaque solution in tubes.

**Reaction**

Reaction of 2.5% w/v aqueous solution is pH 7.4 ± 0.2 at 25°C.

**pH Range**

7.2-7.6

**Cultural Response/Characteristics**

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

| Organisms (ATCC) | Inoculum (CFU) | Growth |
|---|---|---|
| *Escherichia coli* (25922) | $10^2$-$10^3$ | luxuriant |
| *Neisseria meningitidis (13090)* | $10^2$-$10^3$ | luxuriant |
| *Streptococcus pneumoniae* (6303) | $10^2$-$10^3$ | good |
| *Streptococcus pyogenes* (19615) | $10^2$-$10^3$ | good |
| *Staphylococcus aureus* (25923) | $10^2$-$10^3$ | luxuriant |

## 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 day.

## Further Reading

1. Diagnostic Procedures and Reagents, 1950, 3rd ed.. 13
2. Lloyd, 1916, J. Path. and Bact., 21 (Part 1) : 113.
3. Cole and Lloyd, 1917, J. Path. and Bact., 21 (Part 2) : 267.
4. Huntoon, 1918, J. Inf. Dis., 23:169

## Disclaimer :

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