Technical Information

Levinthal's MiVeg Medium Base

Product Code : VM1472

Application:- Levinthal's MiVeg Medium Base with the addition of blood is used for the cultivation of *Haemophilus* species.

Composition

Ingredients	Gms / Litre
MiVeg peptone	10.0
MiVeg extract	10.0
Sodium chloride	5.0
Agar	20.0
Final pH (at 25°C)	7.6 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Levinthal's MiVeg Medium Base is prepared by adding MiVeg peptone and MiVeg extract instead of Peptic digest of animal tissue and Beef extract respectively thus making the medium free of BSE/TSE risks. This medium is the modification of Levinthal's Medium Base.

Haemophilus species require haemoglobin in the culture medium. Whole blood of rabbit or human contains the two important factors viz X factor and V factor, which are necessary for the growth of type species of *Haemophilus influenzae* (1). Other nutrients such as nitrogen compounds are supplied by MiVeg peptone and MiVeg extract added in the medium. Sodium chloride maintains the osmotic balance of the medium. Pathogenic *Haemophilus* species may be presumptively identified by determining in vitro growth requirements for X and V factors and by haemolytic reactions.

Methodology

Suspend 45 grams of powder media in 1000 ml distilled water. Mix thoroughly and heat to boiling to dissolve the medium completely. Dispense in 100 ml amounts and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 50°C and add 5 ml sterile rabbit or human blood to 100 ml medium. Gently heat it, in boiling water bath. Allow the deposits to settle and dispense clear supernatent.

Quality Control

Physical Appearance

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

Gelling

Firm, comparable with 2.0% Agar gel.

Colour and Clarity of prepared medium

Basal medium yields light yellow coloured, clear to slightly opalescent gel. Heating after addition of blood forms chocolate brown coloured gel in petri plates.

Reaction

Reaction of 4.5% 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 18-24 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery
Haemophilus influenzae (35056)	10^2-10^3	luxuriant	>70%
Staphylococcus aureus (25923)	10^2-10^3	luxuriant	>70%
Streptococcus pyogenes (19615)	10^2-10^3	luxuriant	>70%

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. Finegold S.M. and Baron, 1986, Bailey and Scott's Diagnostic Microbiology, 7th ed., The C.V. Mosby Company, St. Louis.

Disclaimer :

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