Technical Information

Mueller Hinton MiVeg Broth

Product Code : VM1391

Application:- Mueller Hinton MiVeg Broth is recommended for cultivation of *Neisseria* and for determination of susceptibility of microorganisms to antimicrobial agents.

Composition

Ingredients	Gms / Litre
MiVeg infusion	2.00
MiVeg acid hydrolysate	17.50
Starch	1.50
Final pH (at 25°C)	7.3±0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Mueller Hinton MiVeg Broth is prepared by using Miveg infusion and Miveg acid hydrolysate in place of Beef infusion and Casein acid hydrolysate respectively which makes it free from BSE/TSE risk. This medium is used for determining Minimal Inhibitory Concentration (MIC) of antimicrobials for aerobic bacteria (1). MiVeg infusion and MiVeg acid hydrolysate provide nitrogenous compounds, carbon, sulphur and other essential nutrients. Starch acts as a "protective colloid" against toxic substances present in the medium. During autoclaving the starch gets hydrolyzed and provides some amount of dextrose, which then serves as energy source. Growth of *Gonococci* and *Meningococci* is highly satisfactory on this medium.

A standardized suspension of the organisms is inoculated in the medium. It is then determined whether the organism is susceptible, intermediate or resistant to an agent by comparing the MIC to standard MIC. Different factors influence the susceptibility tests as, inoculum concentration, medium pH and beta-lactamase production by test organisms (2).

Methodology

Suspend 21.0 grams of powder media in 1000 ml distilled water. Mix thoroughly. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well before pouring.

Quality Control

Physical Appearance

Yellow coloured, homogeneous, free flowing powder.

Colour and Clarity of prepared medium

Light amber coloured, clear solution in tubes.

Reaction

Reaction of 2.1 % w/v aqueous solution pH: 7.3 ±0.2 at 25°C

pH range

7.1-7.5

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 gonorrhoeae (49226)	10^4-10^5	luxuriant
Pseudomonas aeruginosa (27853)	10^4-10^5	luxuriant

Staphylococcus aureus (25923)	10^2-10^3	luxuriant
Enterococcus faecalis (29212)	10^2-10^3	luxuriant
Haemophilus influenzae (49247)	10^2-10^5	good-luxuriant (on chocolate agar)

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.

Further Reading

1. Standard Methods for the Examination of Dairy Products. 2004 17th Edition. Wehr. HM and Frank JH, 2004
2. Ewing., 1986, Edwards and Ewing's identification of Enterobacteriaceae, 4th Ed., Elsevier Science Publishing Co., Inc. New York

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