

Technical Information

Motility Test MiVeg Medium (Edwards and Ewing)

Product Code : VM1930

Application:- Motility Test MiVeg Medium (Edwards and Ewing) is recommended for testing motility of enteric bacteria.

Composition

Ingredients	Gms / Litre
MiVeg peptone	10.0
MiVeg extract	3.0
Sodium chloride	5.0
Agar	4.0
Final pH (at 25°C)	7.4±0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Motility Test MiVeg Medium is prepared by using vegetable peptones in place of animal based peptones thereby making the medium free of BSE/TSE risks. This Medium is the modification of Motility Test Medium formulated as per Edward and Ewing (1). It contains agar concentrations higher than 0.3%, produce gels through which many motile organisms cannot spread. Motile organisms spread out from the line of inoculation, while non-motile organisms grow only along the stab line.

The cultures tubes are stab inoculated with a straight wire. Motility is visualized as diffused growth away from line of inoculation (2, 3). 2,3,5 Triphenyl Tetrazolium Chloride (TTC) (MS2057) may be added to enhance the visibility of bacterial growth. Tetrazolium salts are colourless but are converted into insoluble formazan, a red coloured complex by the reducing properties of growing bacteria. This Medium which contains the tetrazolium, development of this red colour helps to trace the spread of bacteria from the inoculation line. The motility of *Listeria monocytogenes* is frequently best observed in medium without TTC.

Methodology

Suspend 22 grams of powder media in 1000 ml distilled water. Mix thoroughly. Heat to boiling to dissolve the medium completely. Dispense 8 ml amounts in test tubes and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. If desired, 5ml of 1% TTC (2,3,5, Triphenyl Tetrazolium Chloride) (MS2057) may be added aseptically after autoclaving. Cool the tubed medium in an upright position.

Quality Control

Physical Appearance

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

Gelling

Semisolid, comparable with 0.4% Agar gel.

Colour and Clarity of prepared medium

Yellow coloured, clear gel forms in tubes as butt.

Reaction

Reaction of 2.2 % w/v aqueous solution pH: 7.4 ±0.2 at 25°C

pH range

7.2-7.8

Cultural Response/Characteristics

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

Organisms (ATCC)	Inoculum (CFU)	Motility
<i>Enterobacter aerogenes</i> (13048)	luxuriant	+
<i>Escherichia coli</i> (25922)	luxuriant	+
<i>Klebsiella pneumoniae</i> (13883)	luxuriant	-
<i>Salmonella</i> serotype Enteritidis (13076)	luxuriant	+
<i>Staphylococcus aureus</i> (25923)	luxuriant	-

Key: + = growth away from stabline (motile)
- = growth along the stabline (non-motile)

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. Edward P.R. and Ewing W.H. 1972, Cited from, Colour Atlas and Textbook of Diagnostic Microbiology, 1992, 4th ed., J.B. Lippincott Co. Philadelphia.
2. Howard B. J. and Other (Eds.), 1994, Clinical and Pathogenic Microbiology, The C. V. Mosby. Year Book, Inc.
3. Baron. E. J. and Finegold S. M. (Eds.), 1990, Bailey and Scott's 'Diagnostic Microbiology, 8th ed., The C. V. Mosby. Co, St., Louis, Missouri.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conform solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at CDH is true and accurate
- **Central Drug House Pvt. Ltd.** reserves the right to make changes to specifications and information related to the products at any time.
- Products are not intended for human or animal diagnostic or therapeutic use but for laboratory, research or further manufacturing of diagnostic reagents extra.
- Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents. Do not use the products if it fails to meet specifications for identity and performance parameters.