

Motility Test HiVeg™ Medium (Edwards and Ewing)**MV930**

Motility Test HiVeg Medium (Edwards and Ewing) is used for testing motility of enteric bacteria.

Composition ** :

Ingredients	Grams/Litre
HiVeg peptone	10.0
HiVeg 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.

Directions :

Suspend 22 grams in 1000 ml distilled water. 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) (FD057) may be added aseptically after autoclaving. Cool the tubed medium in an upright position.

Principle and Interpretation :

Motility Test HiVeg Medium is prepared by completely replacing animal based peptones with vegetable peptones which makes the medium free of BSE/TSE risks. Motility Test HiVeg Medium is the modification of Motility Test Medium formulated as per Edward and Ewing (1). Motility media containing 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 tubes are inoculated by stabbing with a straight wire. Motility is visualized as diffused growth away from line of inoculation (2, 3). To enhance the visibility of bacterial growth 2,3,5 Triphenyl Tetrazolium Chloride (TTC) (FD057) may be added. Tetrazolium salts are colourless but are converted into insoluble formazan, a red coloured complex by the reducing properties of growing bacteria. In the Motility Test HiVeg Medium containing tetrazolium, the 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.

Quality Control :**Appearance of powder**

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

Product Profile :

Vegetable based (Code MV)©	Animal based (Code M)
MV930 HiVeg peptone HiVeg extract	M930 Peptic digest of animal tissue Beef extract

Recommended for : Testing motility of enteric bacteria.

Reconstitution : 22.0 g/l

Quantity on preparation (500g) : 22.72 L

pH (25°C) : 7.4 ± 0.2

Supplement : TTC (FD057), if desired

Sterilization : 121°C / 15 minutes

Storage : Dry Medium-Below 30°C, Prepared Medium 2 - 8°C.

Gelling

Semisolid, comparable with 0.4% Agar gel.

Colour and Clarity

Yellow coloured, clear gel forms in tubes as butts.

Reaction

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

Cultural Response

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

Organisms (ATCC)	Growth	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)

References :

- 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.
- Howard B. J. and Other (Eds.), 1994, Clinical and Pathogenic Microbiology, The C. V. Mosby. Year Book, Inc.
- 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.