

**Mannitol Motility Test HiVeg™ Medium****MV770**

Mannitol Motility Test HiVeg Medium is a semisolid medium suitable for determining motility and mannitol fermentation of bacteria.

**Composition \*\* :**

Ingredients	Grams/Litre
HiVeg peptone	20.0
Mannitol	2.0
Potassium nitrate	1.0
Phenol red	0.04
Agar	3.0

Final pH (at 25°C)  $7.6 \pm 0.2$

\*\* Formula adjusted, standardized to suit performance parameters.

**Directions :**

Suspend 26 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Dispense into test tubes. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool the tube medium in an upright position.

**Principle and Interpretation :**

Mannitol Motility Test HiVeg Medium is prepared by using HiVeg peptone which is free of BSE/TSE risks. Mannitol Motility Test HiVeg Medium like the conventional medium is designed to differentiate bacteria on the basis of their motility and ability to ferment mannitol. The highly nutritious HiVeg peptone supports luxuriant growth of fastidious bacteria like *Staphylococci*. Semisolid nature of the medium due to 0.3% agar helps to detect motility. Motile bacteria produce diffused growth throughout the medium while non-motile bacteria grow only along the line of inoculation. Combination of mannitol and phenol red helps in differentiation of mannitol fermenting bacteria which turn the medium yellow.

**Quality Control :****Appearance of powder**

Light pink coloured, homogeneous, free flowing powder.

**Gelling**

Semisolid, comparable with 0.3% Agar gel.

**Colour and Clarity**

Red coloured clear to slightly opalescent gel forms in tubes as butts.

**Reaction**

Reaction of 2.6% w/v aqueous solution is pH  $7.6 \pm 0.2$  at 25°C.

**Product Profile :**

Vegetable based (Code MV)©		Animal based (Code M)	
<b>MV770</b>	HiVeg peptone	<b>M770</b>	Peptic digest of animal tissue
<b>Recommended for</b>	:	Determining motility and mannitol fermentation	
<b>Reconstitution</b>	:	26.0 g/l	
<b>Quantity on preparation (100g)</b>	:	3.84 L	
<b>pH (25°C)</b>	:	$7.6 \pm 0.2$	
<b>Supplement</b>	:	None	
<b>Sterilization</b>	:	121°C / 15 minutes.	
<b>Storage</b>	:	Dry Medium - Below 30°C, Prepared Medium 2 - 8°C.	

**Cultural Response**

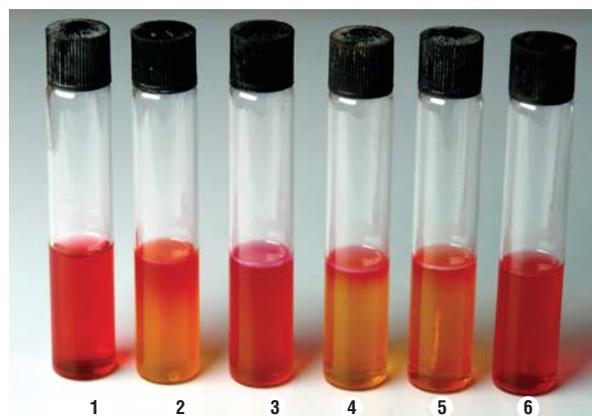
Cultural characteristics observed after an incubation at 35-37°C for 18-48 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Motility	Mannitol fermentation
<i>Escherichia coli</i> (35218)	$10^2-10^3$	luxuriant	+	+
<i>Proteus mirabilis</i> (25933)	$10^2-10^3$	luxuriant	+	-
<i>Proteus vulgaris</i> (13315)	$10^2-10^3$	luxuriant	+	-
<i>Salmonella</i> serotype Typhi (6539)	$10^2-10^3$	luxuriant	+	+
<i>Shigella sonnei</i> (25931)	$10^2-10^3$	luxuriant	-	+
<i>Staphylococcus aureus</i> (25923)	$10^2-10^3$	luxuriant	-	+
<i>Staphylococcus epidermidis</i> (12228)	$10^2-10^3$	luxuriant	-	-

Key : Mannitol fermentation + = colour change to yellow  
 - = no change  
 Motility + = growth away from stabline (motile)  
 - = growth along the stabline (non-motile)

**References :**

- MacFaddin J.F., 2000(ed), Biochemical Tests for Identification of Medical Bacteria, 3<sup>rd</sup> edition, Lippincott Williams and Wilkins, New York.

**MV770 Mannitol Motility Test HiVeg Medium**

- Control
- Escherichia coli*
- Proteus vulgaris*
- Salmonella* serotype Typhi
- Staphylococcus aureus*
- Staphylococcus epidermidis*