Brain Heart Infusion Broth, HiVeg™ / Brain Heart Infusion, with 0.1% Agar, HiVeg™ / with 6.5% NaCl, HiVeg™

MV210/MV1036/MV1037

Brain Heart Infusion Broth, HiVeg / Brain Heart Infusion, with 0.1% Agar, HiVeg / with 6.5% NaCl, HiVeg is employed for the propagation of fastidious pathogenic cocci and other organisms associated with blood culture work and allied pathological investigations.

Composition** :

Ingredients	MV210 Grams/Litre	MV1036 Grams/Litre	MV1037 Grams/Litre
HiVeg peptone No. 3	10.00	10.00	10.00
HiVeg special infusion	7.50	7.50	7.50
HiVeg infusion	10.00	10.00	10.00
Dextrose	2.00	2.00	2.00
Sodium chloride	5.00	5.00	65.00
Disodium phosphate	2.50	2.50	2.00
Agar	—	1.00	—

Final pH (at 25°C) 7.4 ± 0.2
** Formula adjusted, standardized to suit performance parameters

Directions :

Suspend 37.0 grams of MV210 or 38.0 grams of MV1036 or 97.0 grams of MV1037 in 1000 ml distilled water. Dispense into bottles or tubes and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. For best results, the medium should be used on the day it is prepared, otherwise, it should be boiled or steamed for a few minutes and then cooled before use.

Principle and Interpretation :

These media are prepared by completely replacing animal based peptone with vegetable peptone making the media free of BSE / TSE risks. Rosenow (1) devised the original medium by adding brain tissue to dextrose broth. These media like the conventional media are nutritious and well buffered to support the growth of wide variety of microorganisms (2, 3, 4). With the addition of 10% defibrinated sheep blood, it is useful for isolation and cultivation of *Histoplasma capsulatum* (5) and other fungi. In the formulation containing 6.5% sodium chloride (MV1037), the salt acts as a differential and/or selective agent by interfering with membrane permeability and osmotic and electrokinetic equilibria in salt intolerant organisms. The addition of 0.1% agar improves growth of microaerophilic and anaerobic microorganisms (4). Brain Heart Infusion Broth, HiVeg with addition of 1.5% agar should not be used for detection of haemolytic activity of *Streptococci*, since it contains dextrose, which has been reported to cause a typical haemolytic reactions when it is present in blood containing media. For selective isolation of fungi, addition of Gentamicin and/or Chloramphenicol is recommended (6).

Product Profile :

Vegetable based (Code MV)◉	Animal based (Code M)
MV210/MV1036/MV1037	**M210/M1036/M1037**
HiVeg special infusion	Brain infusion
HiVeg infusion	Heart infusion
HiVeg peptone No. 3	Proteose peptone

Recommended for	:	Preparation of fastidious pathogenic organisms
Reconstitution	:	(MV210) : 37.0 g/l
	:	(MV1036) : 38.0 g/l
	:	(MV1037) : 97.0 g/l
Quantity on preparation (500g):		(MV210) : 13.51 L
(100g) :		(MV210) : 2.7 L
(500g) :		(MV1036) : 13.15 L
(500g) :		(MV1037) : 5.15 L
pH (25°C)	:	7.4 ± 0.2
Supplement	:	None
Sterilization	:	121°C / 15 minutes.

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

Quality Control :

Appearance of Powder

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

Colour and Clarity

Light amber coloured, clear to slightly opalescent solution.

Reaction

Reaction of 3.7% w/v of MV210, 3.8%w/v of MV1036 or 9.7%w/v of MV1037 aqueous solution is pH 7.4 ± 0.2 at 25°C.

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 24-48 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth*	Recovery*	Growth**	Recovery**
Neisseria meningitidis (13090)	$<10^3$	luxuriant	>70%	inhibited	0%
Streptococcus pneumoniae (6303)	$<10^3$	luxuriant	>70%	inhibited	0%
Streptococcus pyogenes (19615)	$<10^3$	luxuriant	>70%	inhibited	0%
Staphylococcus aureus (25923)	$<10^3$	luxuriant	>70%	luxuriant	>70%

Key : *= on MV210, MV1036
**= on MV1037

Continued ...

◉ Prepared from GMO free Vegetable proteins replacing Animal based peptones. Freedom from BSE/TSE worries.

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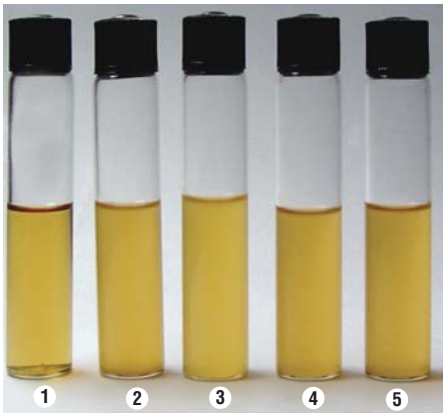

MV210 Brain Heart Infusion Broth, HiVeg

1. Control
2. *Neisseria meningitidis*
3. *Streptococcus pneumoniae*
4. *Streptococcus pyogenes*
5. *Staphylococcus aureus*

References :

1. Rosenow, 1919, J. Dental Research, 1:205.
2. Roseburg T. et al, 1944, J. Inf. Dis., 74:131.
3. Conant N.F., 1950, Diagnostic Procedures and Reagents, 3rd ed., A.P.H.A. Inc., New York.
4. MacFaddin J.F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.
5. Howard B., Keiser J.F., Weissfeld A., et al, 1994, Clinical and Pathogenic Microbiology, 2nd ed., Mosby Co.
6. Murray PR., Baron, Pfaller, Tenover and Yolken (Eds.), ASM, Washington, D.C. 2003, In Manual of clinical Microbiology, 8th ed.