Semisolid RV HiVeg™ Medium Base MV1428

Semisolid RV HiVeg Medium Base is used for the isolation of *Salmonella* from food stuffs and other materials based on selective motility.

Composition ** :

Ingredients	Grams/Litre
HiVeg hydrolysate No. 1	4.60
HiVeg hydrolysate	4.60
Sodium chloride	7.34
Magnesium chloride, anhydrous	10.93
Malachite green	0.037
Agar	2.70

Final pH (at 25°C) 5.4 ± 0.2
** Formula adjusted, standardized to suit performance parameters.

Directions :

Suspend 15.10 grams in 500 ml distilled water. Heat to boiling to dissolve the medium completely. DO NOT AUTOCLAVE. Cool to 45°C and aseptically add 1 vial of IMRV/RV Selective Supplement (FD193). Mix well and pour into sterile petri plates.
Note: The motility of *Salmonellas* can be drastically reduced when the agar surface becomes too dry. Hence the plates should be well dried before use. If visible moisture occurs on the lid of the plates or the surface of agar, it must be removed. While incubation, incubate the plates aerobically in an upright position for no longer than 24 hours at 42°C.

Principle and Interpretation :

Semisolid RV HiVeg Medium Base is prepared by using HiVeg hydrolysates which makes the medium free from BSE/TSE risks. Semisolid RV HiVeg Medium Base is the modification of Semisolid RV Medium Base based on the formulation described by DeSmedt et al (1) for the detection of motile *Salmonella* species from food and environmental specimens. This medium like the conventional medium detects more *Salmonella* positive samples than the routinely used enrichment procedures (2, 3, 4). HiVeg hydrolysate No.1, HiVeg hydrolysate provides the nitrogenous and carbonaceous substances and other essential growth nutrients. Novobiocin and malachite green in the medium inhibits most gram positive organisms. *Salmonella* survives at slight high osmotic pressure owing to presence of magnesium chloride in the medium, grows at slightly low pH and is comparatively resistant to malachite green.
The working of medium is based on the ability of *Salmonella* species to migrate in the selective medium competing with other motile organisms, thus producing opaque halos of growth. The motile bacteria will show a halo or zone of growth originating from inoculation spot.

Product Profile :		
Vegetable based (Code MV)◉		**Animal based** (Code M)
MV1428 HiVeg hydrolysate No. 1 HiVeg hydrolysate		**M1428** Tryptose Casein enzymic hydrolysate
Recommended for	:	Isolation of *Salmonella* from food stuffs and other materials based on selective motility.
Reconstitution	:	30.20 g/l
Quantity on preparation (500g)	:	16.55 L
pH (25°C)	:	5.4 ± 0.2
Supplement	:	IMRV / RV Selective Supplement (FD193)
Sterilization	:	Boiling (DO NOT AUTOCLAVE)
Storage : Dry Medium - Below 30°C, Prepared Medium 2 - 8°C.		

Quality Control :

Appearance of powder
Light green coloured, homogeneous, free flowing powder.
Gelling
Firm, comparable with 0.27% Agar gel.
Colour and Clarity
Blue coloured clear to slightly opalescent semisolid medium forms in petri plates.
Reaction
Reaction of 3.02% w/v aqueous solution is pH 5.4 ± 0.2 at 25°C.
Cultural Response
Cultural characteristics observed after an incubation at 42°C for 18-24 hours. when one drop of culture is inoculated in the centre of the medium plate.

Organisms (ATCC)	Inoculum (CFU)	Growth	Motility
Citrobacter freundii (8090)	10^2-10^3	inhibited	-
Pseudomonas aeruginosa (27853)	10^2-10^3	inhibited	-
Salmonella serotype Enteritidis (13076)	10^2-10^3	luxuriant	+ #
Salmonella serotype Typhimurium (14028)	10^2-10^3	luxuriant	+ #

Key : # = opaque halos of growth originating from the inoculation spot

References :

1. De Smedt J.M., Balderdijk R., Rappold H. and Lautenschlaeger D., 1986, J. Food Prot., 49:510.
2. De Smedt J.M., Balderdijk R., 1987, J. Food Prot., 50:658.
3. De Zutter L. et al, 1991, Int. J. Food Microbiol., 13:11.
4. De Smedt J.M. et al, 1991, Int. J. Food Microbiol., 13:301.

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