M-Bismuth Sulphite HiVeg™ Broth MV1101

M-Bismuth Sulphite HiVeg Broth is a selective medium used for the detection of *Salmonellae* by the membrane filter technique.

Composition ** :

Ingredients	Grams/Litre
HiVeg peptone	20.0
HiVeg extract	10.0
Dextrose	10.0
Disodium phosphate	8.0
Ferrous sulphate	0.6
Bismuth sulphite indicator	16.0
Brilliant green	0.05

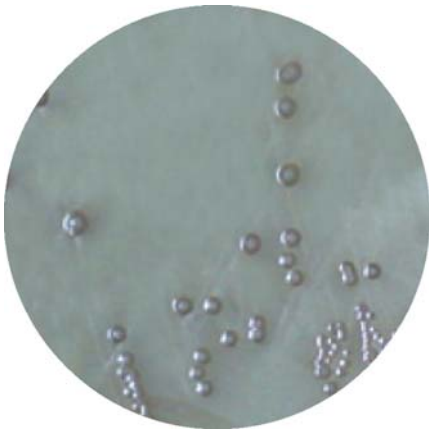
Final pH (at 25°C) 7.7 ± 0.2
** Formula adjusted, standardized to suit performance parameters.

Directions :

Suspend 64.65 grams in 1000 ml distilled water. Heat if necessary to dissolve the medium completely. Excessive heating destroys the selective properties of the medium. DO NOT AUTOCLAVE. The medium usually contains flocculent precipitate which should be dispersed evenly by swirling the flask just before use. Cool to 35°C and saturate sterile absorbent cotton pad with 2 ml of the broth. The medium should be used within 24 hours of rehydration.

Principle and Interpretation :

This medium is prepared by using HiVeg peptone and HiVeg extract which are free from BSE/TSE risks associated with animal based peptones. M-Bismuth Sulphite HiVeg Broth is the modification of M-Bismuth Sulphite Broth which was formulated by Clark et al (1) and is particularly recommended for detection of *Salmonella* serotype Typhi from water and various clinical specimens. Preliminary enrichment on a nonselective medium is not necessary. HiVeg peptone, HiVeg extract and dextrose provides essential growth nutrients. Ferrous sulphate and bismuth sulphite indicator together act as H_2S indicators. Brilliant green acts as selective agent. Luxuriant growth of *Salmonella* serotype Typhi is obtained after 30 hours incubation at 35°C but metallic sheen and brown-black halo is not developed before 40 hours. The importance of this medium like the conventional medium has been repeatedly mentioned for detection of *Salmonella* serotype Typhi by membrane filter technique (2 - 5).



MV1101 M-Bismuth Sulphite HiVeg Broth
Salmonella serotype Typhimurium

Product Profile :		
Vegetable based (Code MV)◉		**Animal based** (Code M)
MV1101 HiVeg peptone HiVeg extract		**M1101** Peptic digest of animal tissue Beef extract
Recommended for	:	The detection of *Salmonellae* by the membrane filter technique
Reconstitution	:	64.65 g/l
Quantity on preparation (500g)	:	7.73 L
pH (25°C)	:	7.7 ± 0.2
Supplement	:	None
Sterilization	:	Boiling (DO NOT AUTOCLAVE)
Storage : Dry Medium - Below 30°C, Use freshly prepared medium.		

Quality Control :

Appearance of powder
Greenish yellow coloured, homogeneous, free flowing powder.

Colour and Clarity
Greenish yellow coloured, opaque solution which may contain flocculent precipitate.

Reaction
Reaction of 6.4% w/v aqueous solution is pH 7.7 ± 0.2 at 25°C.

Cultural Response
Cultural characteristics observed after an incubation at 35-37°C for 40 - 48 hours, in humid atmosphere.

Organisms (ATCC)	Inoculum (CFU)	Growth	Colour of colony*
Escherichia coli (25922)	10^3-2x10^3	inhibited	-
Salmonella serotype Typhi (6539)	10^2-10^3	luxuriant	black with sheen
Salmonella serotype Typhimurium (14028)	10^2-10^3	luxuriant	black with sheen
Staphylococcus aureus (25923)	10^3-2x10^3	inhibited	-

Key : * = on membrane filter

References :

1. Clark H.F., Geldreich E.E., Jeter M.L. and Kabler P.W. 1951, Publ. Hlth. Reports, 66:951.
2. J. Am. Water Works Assoc., 1951, 43:943.
3. J. Am. Water Works Assoc., 1952, 44:471.
4. J. Am. Water Works Assoc., 1953, 45 and 1196.
5. MacFaddin J.F., 1985, 'Media for Isolation-Identification-Cultivation-Maintenance of Medical Bacteria', vol - 1, Williams and Wilkins, Baltimore.