Cholera HiVeg™ Medium Base MV558

Cholera HiVeg Medium Base is a selective medium used for the selective isolation of *Vibrio* species from specimens grossly contaminated with *Enterobacteriaceae.*

Composition ** :

Ingredients	Grams/Litre
HiVeg peptone	10.0
HiVeg extract	10.0
Sucrose	10.0
Sodium lauryl sulphate	0.1
Sodium chloride	20.0
Sodium carbonate	5.0
Agar	10.0

Final pH (at 25°C) 8.5 ± 0.2
** Formula adjusted, standardized to suit performance parameters.

Directions :

Suspend 65.1 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Cool to 70°C and add 2 ml of a sterile 1% Potassium Tellurite solution (FD052) and 5 ml of sterile defibrinated blood. Maintain at 70°C for a few minutes. Cool to 50°C and pour into sterile petri plates.

Principle and Interpretation :

Cholera HiVeg Medium Base is prepared by using HiVeg peptone and HiVeg extract which are free of BSE/TSE risks associated with animal based peptones. Cholera HiVeg Medium Base is the modification of Cholera Medium Base which is based on the formulation described by Felsenfeld and Watanabe (1) for the isolation of *Vibrio cholerae* and similar *Vibrios* from specimens contaminated with *Enterobacteriaceae*. It is a selective medium used for the isolation of *Vibrio* species from specimens contaminated with enteric bacteria.
HiVeg extract and HiVeg peptone provide nitrogenous nutrients whereas sucrose serves as the fermentable carbohydrate source for the metabolism of *Vibrios*. Added blood provides extra nutrition to growing *Vibrios*. Sodium lauryl sulphate inhibits many contaminating organisms. Potassium tellurite is a selective and differentail agent . It inhibits many gram -positive bacteria and is also reduced by *Vibrio* form grey to black coloured colonies. Alkaline pH of medium and sodium chloride selctively favours growth of *Vibrio* species.

Product Profile :

Vegetable based (Code MV)◉	Animal based (Code M)
MV558 HiVeg peptone HiVeg extract	**M558** Peptic digest of animal tissue Beef extract

Recommended for	:	Isolation of *Vibrio* species from specimens grossly contaminated with *Enterobacteriaceae*.
Reconstitution	:	65.1 g/l
Quantity on preparation (500g)	:	7.68 L
pH (25°C)	:	8.5 ± 0.2
Supplement	:	1% Potassium Tellurite Solution (FD052), Defribrinated blood
Sterilization	:	Boiling (DO NOT AUTOCLAVE)

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

Quality Control :

Appearance of powder
Light yellow coloured, may have slightly greenish tinge, homogeneous, free flowing powder.
Gelling
Firm, comparable with 1.0% Agar gel.
Colour and Clarity
Basal medium forms yellow coloured slightly opalescent gel. With addition of Potassium tellurite and blood upon heating brownish red opalescent gel forms in petri plates.
Reaction
Reaction of 6.5% w/v aqueous solution is pH 8.5 ± 0.2 at 25°C.
Cultural Response
Cultural characteristics observed after an incubation at 35-37°C for 18 - 24 hours with added 1% Potassium Tellurite Solution (FD052) and sterile defibrinated blood.

Organisms (ATCC)	Inoculum (CFU)	Growth	Colour of colonies	Recovery
Bacillus subtilis (6633)	10^2-10^3	inhibited	-	0%
Escherichia coli (25922)	10^2-10^3	inhibited	-	0%
Proteus mirabilis (25933)	10^2-10^3	inhibited	-	0%
Pseudomonas aeruginosa (27853)	10^2-10^3	inhibited	-	0%
Vibrio cholerae (15748)	10^2-10^3	luxuriant	grey	>50%
Vibrio parahaemolyticus (17802)	10^2-10^3	luxuriant	light grey	>50%

References :

1. Felsenfeld O. and Watanabe Y., 1 958, U.S. Armed Forces Med. J., 9(7):975.

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