M-Staphylococcus HiVeg™ Broth MV1120

M-Staphylococcus HiVeg Broth is used for detection and isolation of *Staphylococci* by membrane filter technique.

Composition ** :

Ingredients	Grams/Litre
HiVeg hydrolysate	10.0
Yeast extract	2.5
Lactose	2.0
Mannitol	10.0
Dipotassium hydrogen phosphate	5.0
Sodium chloride	75.0
Sodium azide	0.049

Final pH (at 25°C) 7.0 ± 0.2
** Formula adjusted, standardized to suit performance parameters.

Directions :

Suspend 104.55 grams in 1000 ml distilled water. Mix thoroughly and boil for 5 minutes. DO NOT AUTOCLAVE. Cool to 45°C and add 2 ml of the medium on to sterile absorbent pad placed in a sterile petri plate. For 10 ml inocula use double strength medium.
Warning: Sodium azide has a tendency to form explosive metal azides with plumbing materials. It is advisable to use enough water to flush off the disposables.

Principle and Interpretation :

M-Staphylococcus HiVeg Broth is prepared by using HiVeg hydrolysate which makes BSE\TSE risks free associated with animal based peptones. M-Staphylococcus HiVeg Broth is the modification of M-Staphylococcus Broth which is used for detection and isolation of *Staphylococci* by membrane filter technique. This broth, like the conventional medium is especially used for isolating pathogenic and enterotoxigenic *Staphylococci* (1).
HiVeg hydrolysate and yeast extract supply essential growth factors such as nitrogen, carbon, sulphur, vitamins and trace ingredients. The 7.5% concentration of sodium chloride results in the partial or complete inhibition of bacteria except *Staphylococci*. Mannitol and lactose are utilized as energy sources. Sodium azide inhibits gram negative organisms. Observe membrane for growth and pigment production. Mannitol fermentation can be visualized as yellow colouration by addition of a few drops of bromothymol blue to the areas from where colonies have been removed, a yellow colour indicates mannitol fermentation.

Product Profile :

Vegetable based (Code MV)◉	Animal based (Code M)
MV1120 HiVeg hydrolysate	**M1120** Casein enzymic hydrolysate

Recommended for	:	Detection and isolation of *Staphylococci* by membrane filter technique
Reconstitution	:	104.55 g/l
Quantity on preparation (500g)	:	4.78 L
pH (25°C)	:	7.0 ± 0.2
Supplement	:	None
Sterilization	:	Boiling (DO NOT AUTOCLAVE).

Storage : Dry Medium - Below 30°C, Use freshly prepared medium.

Quality Control :

Appearance of powder
Yellow coloured, may have slightly greenish tinge, homogeneous, free flowing powder.
Colour and Clarity
Light amber coloured, clear solution without any precipitate.
Reaction
Reaction of 10.45% w/v aqueous solution is pH 7.0 ± 0.2 at 25°C.
Cultural Response
Cultural characteristics observed after an incubation at 35-37°C for 18 - 48 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Mannitol fermentation	Pigment production
Enterococcus faecalis (29212)	10^2-10^3	inhibited	-	-
Escherichia coli (25922)	20-200	inhibited	Not applicable	-
Staphylococcus aureus (25923)	20-200	good-luxuriant	+	+
Staphylococcus epidermidis (12228)	20-200	good-luxuriant	-	-
Streptococcus pyogenes (19615)	10^2-10^3	inhibited	-	-

Key : Mannitol Fermentation :- + = Development of yellow colour from where the colony is removed when 2-3 drops of BTB is added
- = No colour change

References :

1. MacFaddin JF., 1985, Media for Isolation-Cultivation-Identification - Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.

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