Vogel-Johnson HiVeg™ Agar Base w/o Tellurite (V.J. HiVeg™ Agar) MV023

V.J. HiVeg Agar with addition of Potassium Tellurite is recommended for selective detection of coagulase positive and mannitol fermenting *Staphylococcus aureus* from heavily contaminated foods and clinical specimens.

Composition ** :

Ingredients	Grams/Litre
HiVeg hydrolysate	10.0
Yeast extract	5.0
Mannitol	10.0
Dipotassium phosphate	5.0
Lithium chloride	5.0
Glycine	10.0
Phenol red	0.025
Agar	16.0

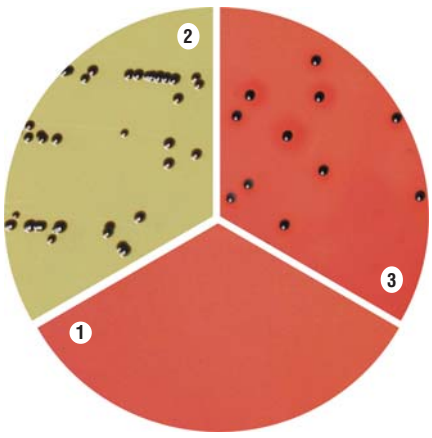
Final pH (at 25°C) 7.2 ± 0.2
** Formula adjusted, standardized to suit performance parameters.

Directions :

Suspend 61 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45°C and add 20 ml of sterile 1% Potassium Tellurite solution (FD052). Mix gently and pour into sterile petri plates.
Warning : Lithium Chloride is harmful. Avoid bodily contact and inhalation of vapours. On contact with skin wash with plenty of water immediately.

Principle and Interpretation :

This medium is prepared by replacing casein enzymic hydrolysate by HiVeg hydrolysate which makes the medium free of BSE/TSE risks. Vogel-Johnson HiVeg Agar Base is the modification of Vogel-Johnson Agar Base which is prepared according to the formula of Vogel and Johnson (1) who modified the medium developed by Zebovitz (2) by adding phenol red as a pH indicator and increased the mannitol quantity. This is a selective medium for the detection of coagulase positive *Staphylococci*. HiVeg hydrolysate and yeast extract provide nitrogenous compounds, vitamin B complex and other growth nutrients. Dipotassium phosphate gives buffering capacity to the medium. During first 24 hours of incubation, contaminating organisms are almost inhibited by tellurite, lithium chloride and high glycine content. *Staphylococcus aureus* can also be inhibited by these inhibitors but they get compensated by mannitol and glycine. Coagulase-positive *Staphylococci* reduce potassium tellurite to metallic free tellurium and thus produce black colonies surrounded by yellow zones. This yellow colour is due to phenol red indicator which turns yellow in acidic condition by the fermentation of mannitol. Prolonged incubation may result in the growth of black coagulase negative colonies.



MV023 Vogel-Johnson HiVeg Agar Base w/o Tellurite (V.J. HiVeg Agar)

1. Control
2. *Staphylococcus aureus*
3. *Staphylococcus epidermidis*

Product Profile :	
Vegetable based (Code MV)◉	**Animal based** (Code M)
MV023 HiVeg hydrolysate	**M023** Casein enzymic hydrolysate
Recommended for :	Selective detection of coagulase positive and mannitol fermenting *Staphylococcus aureus*.
Reconstitution :	61.0 g/l
Quantity on preparation (500g) :	8.19 L
(100g) :	1.63 L
pH (25°C) :	7.2 ± 0.2
Supplement :	Potassium Tellurite (FD052)
Sterilization :	121°C / 15 minutes.
Storage : Dry Medium - Below 30°C, Prepared Medium 2 - 8°C.	

Quality Control :

Appearance of powder
Beige coloured, may have slightly greenish tinge, homogeneous, free flowing powder.
Gelling
Firm, comparable with 1.6% Agar gel.
Colour and Clarity
Orangish pink coloured, slightly opalescent gel forms in petri plates.
Reaction
Reaction of 6.1% w/v aqueous solution is pH 7.2 ± 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).

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery	Colour of Colony
Escherichia coli (25922)	10^2-10^3	inhibited	0%	-
Proteus mirabilis (25933)	10^2-10^3	poor	>20%	black
Staphylococcus aureus (25923)	10^2-10^3	luxuriant	>50%	black with yellow halo
Staphylococcus epidermidis (12228)	10^2-10^3	fair	>30%	translucent to blackish

References :

1. Vogel and Johnson, 1960, Public Health Lab., 18:131.
2. Zebovitz, Evans and Niven, 1955, J. Bacteriol., 70:686.

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