Diphtheria Virulence HiVeg™ Agar Base MV882

Diphtheria Virulence HiVeg Agar Base with supplement is used for testing toxigenicity of *Corynebacterium diphtheriae*.

Composition ** :

Ingredients	Grams/Litre
HiVeg peptone No. 3	20.0
Sodium chloride	2.5
Agar	15.0

Final pH (at 25°C) 7.8 ± 0.2
** Formula adjusted, standardized to suit performance parameters.

Directions :

Suspend 37.5 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 55-60°C. Aseptically add 2ml sterile Diphtheria Virulence Supplement (FD072) and 0.5 ml sterile 1% Potassium Tellurite (FD052) to a 100 mm petri plate and quickly add 10 ml of the sterile Diphtheria Virulence HiVeg Agar Base. Before the medium solidifies, place a filter paper strip saturated with potent Diphtheria antitoxin across the diameter of the plate. Allow the strip to sink to the bottom of the plate. Inoculate the plate with heavy inoculum across the strip.

Principle and Interpretation :

Diphtheria Virulence HiVeg Agar Base is prepared by using HiVeg peptone No. 3 which is free of BSE/TSE risks in place Proteose peptone in the conventional medium. Diphtheria Virulence HiVeg Agar Base is the modification Diphtheria Virulence Agar Base formulated as per the Hermann et al (1) to support luxuriant growth of *Corynebacterium diphtheriae*. Elek (2) demonstrated an agar diffusion technique for testing virulence of *Corynebacterium diphtheriae* in-vitro. King et al (3) standardized the medium by comparing with animal inoculation tests to obtain consistent results. However, it was found that serum of different animals gives different results. Hermann et al (1) developed medium to overcome these difficulties. This medium is prepared on the same lines except that vegetable peptone is used. Upon incubation of the inoculated plate, a line of precipitin is observed for toxigenic strains. Potassium tellurite inhibits most gram-negative bacteria except *Corynebacterium* species, *Streptococcus mitis*, *Streptococcus salivarius* and *Enterococci*. *Staphylococcus epidermidis* may exhibit growth.

Product Profile :

Vegetable based (Code MV)◉	Animal based (Code M)
MV882 HiVeg peptone No. 3	**M882** Proteose peptone

Recommended for	:	Testing toxigenicity of *Corynebacterium diphtheriae.*
Reconstitution	:	37.5 g/l
Quantity on preparation (500g)	:	13.33 L
pH (25°C)	:	7.8 ± 0.2
Supplement	:	Diphtheria Virulence Supplement (FD072), Potassium Tellurite (FD052)
Sterilization	:	121°C / 15 minutes.

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 1.5% Agar gel.

Colour and Clarity
Medium amber coloured, slightly opalescent gel forms in petri plates.

Reaction
Reaction of 3.75% w/v aqueous solution is pH 7.8 ± 0.2 at 25°C

Cultural Response
Cultural characteristics observed after an incubation of 24 - 72 hours at 35 - 37°C with added Diptheria Virulence Supplement (FD072) and 1% Potassium tellurite solution (FD052).

Organisms (ATCC)	Growth	Line of preciptin
Bacillus subtilis (6633)	inhibited	-
Corynebacterium diphtheriae type gravis	luxuriant	+
Corynebacterium diphtheriae type intermedius	luxuriant	+
Corynebactrium diphtheriae type mitis	luxuriant	+
Staphylococcus epidermidis (12228)	none-poor	-

References :

1. Hermann, Moore and Parsons, 1958, Am. J. Clin. Path., 29:181.
2. Elek, 1948, Brit. Med. J., 1:493.
3. King, Frobisher and Parsons, 1949, Am. J. Pub. Health, 39:1314.

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