KG HiVeg™ Agar Base MV658

Kim-Goepfert (KG) HiVeg Agar Base with added supplements is used for promoting fast and free sporulation of *Bacillus cereus* and *Bacillus thuringiensis*.

Composition ** :

Ingredients	Grams/Litre
HiVeg peptone	1.0
Yeast extract	0.5
Phenol red	0.025
Agar	18.0

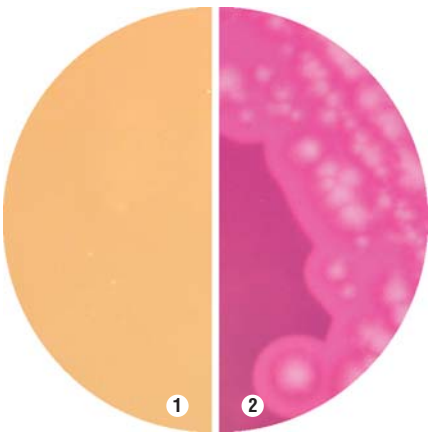
Final pH (at 25°C) 6.8 ± 0.2
** Formula adjusted, standardized to suit performance parameters.

Directions :

Suspend 19.53 grams in 900 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 50°C and aseptically add 100 ml sterile, Egg Yolk Emulsion (FD045) and reconstituted Polymyxin B Selective Supplement (FD003). Mix well and pour into sterile petri plates.

Principle and Interpretation :

This medium is prepared by replacing Peptic digest of animal tissue by HiVeg peptone which is free from BSE/ TSE risks. KG HiVeg Agar Base is the modification of KG Agar Base which was formulated by Kim and Goepfert (1) to promote free spore formation of *Bacillus cereus* and *Bacillus thuringiensis* within 20 - 24 hours.
HiVeg peptone and yeast extract supports growth and lecithinase production of *Bacillus cereus, Bacillus thuringiensis. Bacillus polymyxa* is unable to form lecithinase under the nutritionally poor conditions. Lecithinase activity is observed as opaque zone surrounding the individual colony. *Bacillus cereus* is resistant to Polymyxin B, where as gram-negative organisms are restricted by it. *Bacillus cereus* and *Bacillus thuringiensis* can be distinguished by means of microscopic examination, where the latter show endotoxin crystals in sporulated cells.



MV658 KG HiVeg Agar Base
1. Control
2. *Bacillus cereus*

Product Profile :		
Vegetable based (Code MV)◉		**Animal based** (Code M)
MV658 HiVeg peptone		**M658** Peptic digest of animal tissue
Recommended for	:	Promoting fast and free sporulation of *Bacillus cereus* and *Bacillus thuringiensis*.
Reconstitution	:	19.53 g/l
Quantity on preparation (500g)	:	25.6 L
pH (25°C)	:	6.8 ± 0.2
Supplement	:	Polymyxin B Selective Supplement (FD003) and Egg Yolk Emulsion (FD045)
Sterilization	:	121°C / 15 minutes.
Storage : Dry Medium - Below 30°C, Prepared Medium 2 - 8°C.		

Quality Control :

Appearance of powder
Light pink coloured, homogeneous free flowing powder.
Gelling
Firm, comparable with 1.8% Agar gel.
Colour and Clarity
Orange coloured, clear basal medium which on addition of sterile Egg Yolk Emulsion (FD045) and Polymyxin B Sulphate(FD003), forms orangish opalescent gel form in petri plates.
Reaction
Reaction of 1.95% w/v aqueous solution is pH 6.8 ± 0.2 at 25°C
Cultural Response
Cultural characteristics observed after an incubation at 30-35°C for 24 hours with added sterile Egg Yolk Emulsion (FD045) and Polymyxin B. Selective Supplement (FD003).

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery	Lecithinase
Bacillus cereus (11778)	10^2-10^3	luxuriant	>50%	+
Bacillus thuringiensis (10792)	10^2-10^3	good-luxuriant	>50%	+
Escherichia coli (25922)	10^2-10^3	none-poor	<20%	-

Key : + = Opaque zone around the colony.

References :

1. Kim H.V. and Goepfert J.M., 1971, Appl. Microbiol, 22:581.

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