Technical Information

KG MiVeg Agar Base

Product Code : VM1658

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

Composition

Ingredients	Gms / Litre
MiVeg 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.

Principle & Interpretation

KG MiVeg Agar Base is prepared by using by MiVeg peptone in place of Peptic digest of animal tissue thus making the medium free from BSE/ TSE risks. KG MiVeg 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.

MiVeg peptone and yeast extract supports growth and lecithinase production of *Bacillus cereus, Bacillus thuringiensis. Bacillus polymyxa* is unable to produce lecithinase under nutritionally poor conditions. Lecithinase activity is seen as opaque zone surrounding the individual colony. *Bacillus cereus* is resistant to Polymyxin B, whereas it inhibit gram-negative organisms. *Bacillus cereus* and *Bacillus thuringiensis* can be distinguished by means of microscopic examination, where the latter show endotoxin crystals in sporulated cells.

Methodology

Suspend 19.53 grams of powder media in 900 ml distilled water. Mix thoroughly and 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 (MS2045) and reconstituted Polymyxin B Selective Supplement (MS2003). Mix well and pour into sterile petri plates.

Quality Control

Physical Appearance

Light pink coloured, homogeneous, free flowing powder.

Gelling

Firm, comparable with 1.8% Agar gel.

Colour and Clarity of prepared medium

Orange coloured, clear basal medium which on addition of sterile Egg Yolk Emulsion (MS2045) and Polymyxin B Sulphate (MS2003), 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.

pH Range

6.6-7.0

Cultural Response/Characteristics

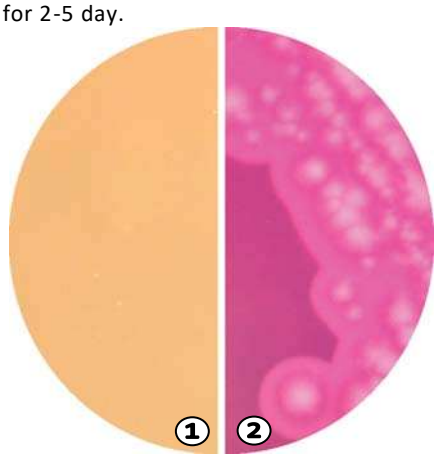
Cultural characteristics observed after an incubation at 30-35°C for 24 hours with added sterile Egg Yolk Emulsion (MS2045) and Polymyxin B. Selective Supplement (MS2003).

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.

Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.
Prepared Media: 2-8^0 in sealable plastic bags for 2-5 day.



VM1658 KG MiVeg Agar Base
1. Control
2. *Bacillus cereus*

Further Reading

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

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conform solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate.
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