Dehydrated Culture Media
Bases / Media Supplements

Technical Information

SPS MiVeg Agar

Product Code : VM1632

Application:- Sulphite-Polymyxin-Sulphadiazene MiVeg Agar is used for the detection of *Clostridium perfringens* found in foodstuff.

Composition

Ingredients	Gms / Litre
MiVeg hydrolysate	15.0
Yeast extract	10.0
Sodium sulphite	0.5
Polymyxin B sulphate	0.01
Sulphadiazine	0.12
Ferric citrate	0.5
Agar	13.9
Final pH (at 25°C)	7.0 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Sulphite-Polymyxin-Sulphadiazene (SPS) MiVeg Agar is prepared by adding MiVeg hydrolysate in place of Casein enzymic hydrolysate thus making the medium free from BSE/TSE risks. SPS MiVeg Agar is the modification of SPS Agar which was devised by Angelotti et al (1) and is a modification of the medium of Wilson and Blair and Mossel et al for the recovery of *Clostridium* species with Miller Prickett tubes (2,3). Most *Clostridium* species reduce, sulphite to sulphide which reacts with ferric citrate and forms ferrous sulphide indicated by black coloured colonies. Certain strains of *Clostridium perfringens* fail to grow or form distinct black colonies (4). Polymyxin B and Sulphadiazine suppresses other sulphite reducing gram-positive and gram-negative organisms to grow.

Samples under examination are serially diluted and then appropriate volumes of these dilutions added to sterile petri-plates. Molten SPS MiVeg Agar is then added onto these plates with gently rotating the plates for even distribution. If desired, pour cover layers using about 5 ml sterile medium. Incubate the plates anaerobically and enumerate the black colonies.

Methodology

Suspend 40 grams of powder media in 1000 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.

Quality Control

Physical Appearance

Light yellow coloured, may have slightly greenish tinge, homogeneous, free flowing powder.

Gelling

Firm, comparable with 1.39% Agar gel.

Colour and Clarity of prepared medium

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

Reaction

Reaction of 4.0% w/v aqueous solution is pH 7.0 ± 0.2 at 25°C.

pH Range

6.8 - 7.2

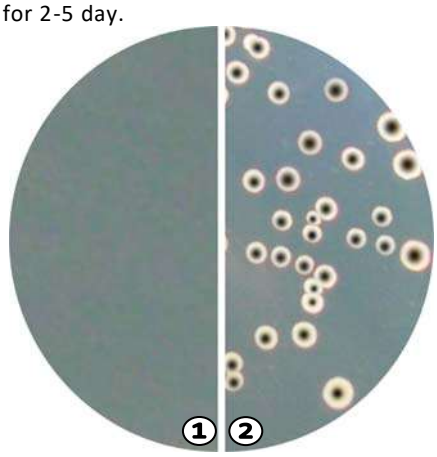
Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 35 -37°C for 18 - 48 hours under anaerobic conditions.

Organisms (ATCC)	Inoculum (CFU)	Growth	Colour of colony
Clostridium perfringens (12924)	10^2-10^3	good- luxuriant	black
Clostridium sporogenes (11437)	10^2-10^3	poor-good	black
Escherichia coli (25922)	10^2-10^3	inhibited	-
Staphylococcus aureus (25923)	10^2-10^3	none-poor	white

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.



VM1632 SPS MiVeg Agar
(Against dark background)
1. Control
2. *Clostridium perfringens*

Further Reading

1. Angelotti et al, 1962, Appl. Microbiol., 10:193.
2. Mossel, et al, 1956, J. Appl. Microbiol., 19:142.
3. Mossel, 1959, J. Sci. Food Agric., 19:662.
4. Downes, F.P and Ito K (Eds.), 2001, Compendium of Methods For The Microbiological Examination of Foods, 4th ed., APHA, Washington, D.C

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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