

Technical Information

Actidione MiVeg Agar Base w/o Actidione

Product Code : VM1058

Application:- MiVeg Agar Base without Actidione is used for the enumeration and detection of bacteria in specimens containing large number of yeasts and moulds.

Composition**

Ingredients	Grams/Litre
MiVeg hydrolysate	5.00
Yeast extract	4.00
Dextrose	50.00
Monopotassium phosphate	0.55
Potassium chloride	0.425
Calcium chloride	0.125
Magnesium sulphate	0.125
Ferric chloride	0.0025
Manganese sulphate	0.0025
Brom cresol green	0.022
Agar	15.00
Final pH (at 25°C)	5.5 ± 0.2

** Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Actidione MiVeg Agar Base w/o Actidione is prepared by using MiVeg hydrolysate in place of Casein enzymic hydrolysate thereby making the medium BSE / TSE risk free. This medium is the modification of Actidione Agar formulated by Green and Gray (1) which is also used for microbiological investigation during brewing and baking. Actidione (Cycloheximide) at a concentration of 0.001% is added to the medium which permits the growth of bacteria and inhibits the growth of most yeasts and moulds except dermatophytes. This medium can be used for the estimation of bacterial contamination of pitching yeast. Addition of penicillin or streptomycin makes it selective for isolation of dermatophytes.

MiVeg hydrolysate acts as source of nitrogen while yeast extract serves as a rich reservoir of vitamins. Dextrose in high amount along with mineral salts at acidic pH favour sugar fermentation.

Methodology

Suspend 75.25 grams of dehydrated media in 1000 ml distilled water. Mix thoroughly. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. AVOID EXCESSIVE HEATING. Cool to 45°C. Aseptically add 10 mg cycloheximide to the medium. Mix well before pouring into sterile petriplates.

Warning : *Actidione (Cycloheximide) is very toxic. Avoid skin contact or aerosol formation and inhalation.

Quality Control

Physical Appearance

Light green coloured , homogeneous, free flowing powder.

Gelling

Firm, comparable with 1.5% Agar gel.

Colour and Clarity of prepared medium

Greenish Yellow coloured clear to slightly opalescent gel forms in petri plates.

Reaction

Reaction of 7.53% w/v aqueous solution is pH 5.5 \pm 0.2 at 25°C.

pH range

5.3-5.7

Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 30°C for 40-48 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery
<i>Escherichia coli</i> (25922)	10 ²	good-luxuriant	>50%
<i>Lactobacillus fermentum</i> (9338)	10 ²	good-luxuriant	>50%
<i>Proteus mirabilis</i> (25933)	10 ²	good-luxuriant	>50%
<i>Saccharomyces cerevisiae</i> (9763)	10 ²	inhibited	>0%
<i>Saccharomyces uvarum</i> (9080)	10 ²	inhibited	>0%

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° in sealable plastic bags for 2-5 days

Further Reading

1. Green, S.R. and Gray, P.P., 1950, Wallerstein Lab. Communication, 13:357.

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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