

Technical Information

Tryptose Cycloserine Dextrose MiVeg Agar Base

Product Code : VM2233

Application:- Tryptose Cycloserine Dextrose MiVeg Agar Base is recommended for the isolation of mesophilic spore forming anaerobes, that are responsible for food spoilage.

Composition**

Ingredients	Gms / Litre
MiVeg hydrolysate No.1	15.0
Papaic digest of soyabean meal	5.0
Yeast extract	5.0
Ferric ammonium citrate	1.0
Agar	20.0
Final pH (at 25°C)	7.6 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Tryptose Cycloserine Dextrose MiVeg Agar Base is prepared by adding vegetable peptones instead of animal based peptones thereby making the medium free from BSE/TSE risks. Tryptose Cycloserine Dextrose MiVeg Agar Base is the modification of Tryptose Cycloserine Dextrose Agar Base used for the isolation of mesophilic spore forming anaerobes that involves in food spoilage (1). This medium is equally potent in performance as the original Tryptose Cycloserine Dextrose Agar Base which has been effectively used as selective media for the isolation and enumeration of mesophilic anaerobic spore formers from environmental samples collected from cannery plant surveys (2).

MiVeg hydrolysate No.1, Papaic digest of soyabean meal and yeast extract supplies all the essential growth nutrients to support the growth of *Clostridium* species. D-cycloserine is incorporated into the medium that effectively inhibits most of the *Enterococci*. Certain anaerobes reduces sulphite to hydrogen sulphide i.e., indicated by blackening of the colonies.

Methodology

Suspend 23 grams of powder media in 500 ml distilled water. Add 0.5 to 1.0% dextrose, if desired. Mix thoroughly and heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 10 minutes. Cool to 50°C and aseptically add one vial of T.S.C. Supplement (MS2014). Mix well before pouring into sterile petri plates.

Quality Control

Physical Appearance

Yellow coloured, homogeneous, free flowing powder.

Gelling

Firm, comparable with 2.0% Agar gel.

Colour and Clarity of prepared medium

Light amber coloured, clear to slightly opalescent gel forms in petri plates.

Reaction

Reaction of 4.6% w/v aqueous solution is pH 7.6 ± 0.2 at 25°C.

pH Range

7.4-7.8



Dehydrated Culture Media
Bases / Media Supplements

Cultural Response/Characteristics

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

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery
<i>Clostridium perfringens</i> (12924)	10^2 - 10^3	Luxuriant	>70%
<i>Clostridium sporogenes</i> (11437)	10^2 - 10^3	Luxuriant	>70%

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 day.

Further Reading

1. Vanderzant C and Splittstoesser D (Eds) 1992, Compendium of Methods of the Microbiological Examination of Foods, 3rd ed., APHA, Washington D.C.
2. Lake, D.E. Leseniewski, R.S., Anderson, J.E., Graves, R.R. and Bremser, J.F. 1985 b. Enumeration and isolation of mesophilic anaerobic spore formers from cannery post-processing equipment, J. of Food Protection 48:794.

Disclaimer :

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