Technical Information

Milk Salt MiVeg Agar Base

Product Code :VM1661

Application:- Milk Salt MiVeg Agar Base is used for selective isolation and cultivation Staphylococci.

Composition

Ingredients	Gms / Litre
MiVeg peptone	5.000
MiVeg extract	3.000
Sodium chloride	65.000
Agar	15.000
Final pH (at 25°C)	7.4±0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Milk Salt MiVeg Agar is prepared by using Miveg peptone and Miveg extract in place of animal based peptone and Beef extract respectively which makes it free from BSE/TSE risk free. This medium is used for selective isolation and cultivation of Staphylococci. Koch reported that only Staphylococci could grow on agar media containing 7.5% sodium chloride (1). Chapman in his modification of the Kochs medium utilized this property for making the medium selective by the high salt content (2, 3).

It is a simple but nutritious medium. MiVeg extract , Miveg peptone and skim milk present in the medium provides essential nutrients mainly nitrogenous and carbonaceous compounds including trace ingredients to Staphylococci. This medium contains 6.5% sodium chloride which makes the medium highly selective as majority of the contaminating organisms are inhibited by the high salt concentration, but Staphylococci are able to tolerate the high sodium chloride concentration.

Methodology

Suspend 88 grams of powder media in 900 ml distilled water. Mix thoroughly. Heat to boiling to dissolve the medium completely. Dispense and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 60°C. Aseptically add 10 ml of sterile skim milk (10% w/v skim milk powder solution) to every 90 ml of basal medium. Mix well and pour into sterile Petri plates.

Quality Control

Physical Appearance

Cream to yellow homogeneous free flowing powder

Gelling

Firm, comparable with 1.5% Agar gel

Colour and Clarity of prepared medium

Yellow coloured opaque gel forms in Petri plates after addition of 10%v/v sterile milk

Reaction

Reaction of the basal medium (8.8gm in 90 ml distilled water) at 25°C. pH : 7.4±0.2

pH range

7.20-7.60

Cultural Response/Characteristics

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

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery
Escherichia coli ATCC 25922	>=10^3	inhibited	0%
Staphylococcus aureus ATCC 25923	50-100	good-luxuriant	>=50%

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 days.

Further Reading

1. Koch, 1942, Zentralbl. Bakteriol. Parasitenkd. Abt. I. Orig., 149:122.
2. Chapman, 1946, J. Bacteriol., 51:409.
3. Rechcigl M., Jr. (Ed.), 1978, CRC Handbook Series in Nutrition and Food, Section G., Vol. III, CRC Press, Inc., Ohio, U.S.A.

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