Technical Information

M-FC MiVeg Agar Base, Modified

Product Code : VM2124

Application:- M-FC MiVeg Agar Base, Modified is used for rapid enumeration of *Klebsiella* using membrane filter technique.

Composition

Ingredients	Gms / Litre
MiVeg hydrolysate No. 1	10.0
MiVeg peptone No. 3	5.0
Yeast extract	3.0
Sodium chloride	5.0
Inositol	10.0
Synthetic detergent No. I	1.5
Aniline blue	0.1
Agar	15.0
Final pH (at 25°C)	7.4±0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

M-FC MiVeg Agar Base, Modified is prepared by using vegetable peptones in place of animal peptones which makes the medium free from BSE/TSE risks which was formulated as per APHA (1) for enumeration of *Klebsiella*. In this medium M-FC Agar is modified by replacing lactose with inositol and addition of Carbenicillin. This medium is the modification of M-FC Agar Base Modified. Sample volume is selected to yield 20 to 60 *Klebsiella* colonies per membrane. This membrane filter is placed on agar surface. Occasional false positive occurrences are caused by *Enterobacter* species. Due to presence of aniline blue, *Klebsiella* colonies appears deep blue to blue grey on the membrane filter. It contains MiVeg hydrolysate No.1, MiVeg peptone No.3, yeast extract which supplies nitrogenous compounds, sulphur, vitamins and other nutrients. Inositol serve as the fermentable carbohydrate. Synthetic detergent No. I inhibits gram- positive organisms. Carbenicillin acts as an inhibitory substance.

Methodology

Suspend 49.6 grams of powder media in 1000 ml distilled water. Mix thoroughly. Heat to boiling to dissolve the medium completely. DO NOT AUTOCLAVE. Add 10 ml of 1% Rosolic Acid (MS2058). Cool below 45°C and add 50 mg Carbenicillin. Mix well and pour into sterile petri plates.

Quality Control

Physical Appearance

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

Gelling

Firm, comparable with 1.5% Agar gel.

Colour and Clarity of prepared medium

With addition of 1% Rosolic Acid (MS2058), red coloured slightly opalescent gel forms in petri plates.

Reaction

Reaction of 4.96 % w/v aqueous solution pH: 7.4 ±0.2 at 25°C

pH range

7.0-7.6

Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 35-37°C for 24 hours with added Rosolic Acid (MS2058) and Carbenicillin.

Organisms (ATCC)	Inoculum (CFU)	Growth	Colour of colony*
Enterobacter aerogenes(13048)	20-60	good-luxuriant	pink or pale yellow
Klebsiella pneumoniae (13883)	20-60	good-luxuriant	deep blue-bluegrey

Key : * = on membrane filter

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. Greenberg A. E., Trussell L. S. (ed.) , 1985, Standard methods R. R. and Clesceri for the examination of water and waste water, 16th ed., APHA, Washington, D.C

Disclaimer :

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