

Technical Information

Casein Yeast Magnesium MiVeg Broth

Product Code : VM2247

Application:- Casein Yeast Magnesium MiVeg Broth is used for the cultivation of recombinant strains of *Escherichia coli*.

Composition

Ingredients	Gms / Litre
MiVeg hydrolysate	10.0
Yeast extract	5.0
Sodium chloride	5.0
Magnesium sulphate	0.98
Final pH (at 25°C)	7.0±0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Casein Yeast Magnesium MiVeg Broth is prepared by using Miveg hydrolysate in place of Casein enzymic hydrolysate thereby making the medium free from BSE/TSE risks. This medium is a modification of the formula described by Blattner et al (1, 2) used for cultivating recombinant strains of *Escherichia coli*.

It has constituents like MiVeg hydrolysate and yeast extract which supplies essential nutrients and cofactors required for excellent growth of recombinant strains of *Escherichia coli*. Sodium chloride maintains the osmotic equilibrium of the media. Magnesium sulphate is incorporated to provide magnesium ion which are necessary in a variety of enzymatic reactions including DNA replication.

Methodology

Suspend 21 grams of powder 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.

Quality Control

Physical Appearance

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

Colour and Clarity of prepared medium

Light to medium amber coloured, clear solution in tubes

Reaction

Reaction of 2.1 % w/v aqueous solution pH: 7.0 ±0.2 at 25°C

pH range

6.8-7.2

Cultural Response/Characteristics

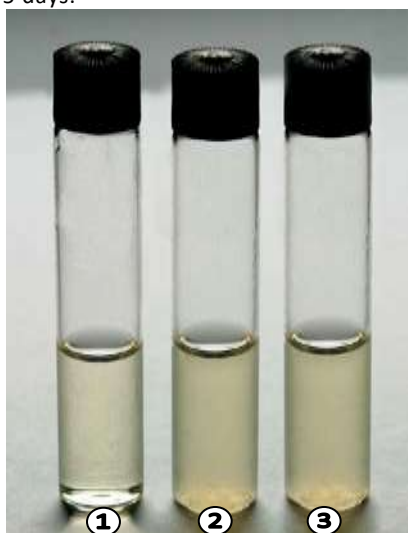
Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery
<i>Escherichia coli</i> (23724)	10 ² -10 ³	good-luxuriant	>70%
<i>Escherichia coli</i> (53868)	10 ² -10 ³	good-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 days.



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1. Control
2. *Escherichia coli* (23724)
3. *Escherichia coli* (53868)

Further Reading

1. Blattner F.R., Williams B.G., Blechl A.E., et al, 1977, Science, 196:161.
2. Sambrook J., Fritsch E. and Manita T., 1989, Molecular Cloning : A Laboratory Manual, 2nd ed., Cold Spring Harbor Laboratory, Cold Spring Harbor, N.Y.

Disclaimer :

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