

Technical Information

Coliform MiVeg Broth

Product Code : VM2211

Application:- Coliform MiVeg Broth is recommended for isolation and cultivation of coliform organisms from cream, yogurt and raw milk.

Composition

Ingredients	Gms / Litre
MiVeg peptone No. 3	15.0
Yeast extract	6.0
Synthetic detergent	5.0
Synthetic detergent No. III	0.1
Lactose	20.0
Sodium lauryl sulphate	1.0
Bromo cresol purple	0.035
MiVeg peptone	10.0
Final pH (at 25°C)	7.0±0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Coliform MiVeg Broth is prepared by using vegetable peptone in place of animal based peptones which makes the medium BSE/TSE risks free. This medium is the modification of Coliform Broth which is recommended for isolation and cultivation of coliforms from cream, yogurt and raw milk (1). It consists of MiVeg peptone No. 3, MiVeg peptone and yeast extract which supplies nitrogenous carbonaceous compounds and vitamin B complex for the growth of coliform. Lactose serves as the fermentable carbohydrate. Bromocresol purple acts as pH indicator. Which indicates fermentation of lactose and produces acid and gas, which is indicated by change in colour of medium to yellow. Synthetic detergents inhibit gram positive bacteria. Sodium lauryl sulphate inhibits many organisms but not coliforms.

Methodology

Suspend 57.14 grams of powder media in 1000 ml distilled water. Mix thoroughly. Heat if necessary to dissolve the medium. Dispense as desired and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Quality Control

Physical Appearance

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

Colour and Clarity of prepared medium

Purple coloured, clear solution without any precipitate.

Reaction

Reaction of 5.71 % 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 18-48 hours

Organisms (ATCC)	Inoculum (CFU)	Growth	Acid	Gas
<i>Enterobacter aerogenes</i> (13048)	10 ² -10 ³	good-luxuriant	+	+
<i>Escherichia coli</i> (25922)	10 ² -10 ³	good-luxuriant	+	+
<i>Staphylococcus aureus</i> (25923)	10 ² -10 ³	inhibited	-	-

KEY : Acid

- + : Positive reaction, yellow colour
- : Negative reaction purple or no colour change

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*
3. *Enterobacter aerogenes*
4. *Staphylococcus aureus*

Further Reading

1. Vanderzant C and Splittstoesser DF (Ed), 1992, Compendium of Methods for the Microbiological Examination of Foods 3rd ed, APHA Washington, DC.

Disclaimer :

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