Technical Information

Folic Acid Inoculum Medium

Product Code: DM 1541

Application: - Folic Acid Inoculum Medium is recommended for the preparation of inoculum of *Enterococcus hirae* ATCC 8043 (formerly *Streptococcus faecium* ATCC 8043), which is used as a test organism for Folic Acid Assay Medium.

Composition**

Ingredients	Gms / Litre
Peptonized milk	15.000
Yeast extract	5.000
Dextrose	10.000
Potassium dihydrogen phosphate	2.000
Tomato juice (100 ml)	5.000
Polysorbate 80 (Tween 80)	1.000
Final pH (at 25°C)	6.8±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Folic Acid Inoculum Medium is used for the preparation of inoculum to be used in the assay of the vitamins. Folic Acid Inoculum Medium is formulated as described by Kavanagh (1) and recommended by AOAC (2) for inoculum preparation of *Enterococcus hirae* ATCC 8043, the test organism for Folic Acid Assay Medium (1). It is an important part of any medium for the maintenance inoculums preparation of test organisms.

Yeast extract and peptonized milk supply mainly the nitrogenous nutrients, vitamins and minerals essential for the growth of the test organisms. Dextrose acts as energy source while tomato juice provides the growth factors in the medium. Polysorbate 80 maintains the surface tension of the medium to the optimal level while phosphate maintains the buffer the medium.

Inoculate 10 ml of Folic Acid Inoculum Medium with an 18-24 hours old culture from Folic Acid Culture Agar (DM 1134). Incubate at 35-37°C for 18-24 hours. Centrifuge the growth and resuspend the sediment in 10 ml of 0.85 % sterile saline, after decanting the supernatant. Repeat washing with saline, two more times. Dilute 1 ml of the washed cell suspension with 99 ml of 0.85% sterile saline (1:100). Adjust the inoculum concentration as per requirement or standard reference (2).

Extreme care should be taken to avoid contamination of media or glassware used for the assay. Detergent free clean glassware should be used. Even small amount of contamination by foreign material can lead to erroneous results.

Methodology

Suspend 38 grams of dehydrated powder media in 1000 ml distilled water. Mix thoroughly & heat if necessary to dissolve the medium completely. Distribute in tubes. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Quality Control

Appearance
Cream to yellow homogeneous free flowing powder.

Colour and Clarity
Medium amber coloured, clear to slightly opalescent solution in tubes.

Reaction
Reaction of 3.8% w/v aqueous solution at 25°C. pH : 6.8±0.2

pH Range
6.60-7.00

Cultural Response
DM1541: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth
Lactobacillus casei ATCC7 469	50-100	luxuriant
Lactobacillus leichmannii ATCC 7830	50-100	luxuriant
Lactobacillus plantarum ATCC 8014	50-100	luxuriant
Enterococcus hirae ATCC 8043	50-100	luxuriant

Storage and Shelf Life

Dried Media: Store between 10-30°C in a tightly closed container and the prepared medium at 20-30°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use. Product performance is best if used within stated expiry period.

Further Reading

1. Kavanagh F., 1963, Analytical Microbiology, Academic Press, New York.
2. Williams. (Ed.), 2005, Official Methods of Analysis of the Association of Official Analytical Chemists, 19th ed., AOAC, Washington, D.C.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conform solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at CDH is true and accurate
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