



Dehydrated Culture Media
Bases / Media Supplements

Technical Information

M-Tryptone Glucose Extract Broth

Product Code: DM 2116

Application: - M-Tryptone Glucose Extract Broth is used for enumeration of bacteria in milk and other samples of sanitary importance in dairy industries by membrane filter technique.

Composition**

Ingredients	Gms / Litre
Casein enzymic hydrolysate	10.000
Dextrose	2.000
Beef extract	6.000
Final pH (at 25°C)	7.0±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

For safety on control of the manufacturing process the dairy industry has relied on the use of tests normally the standard plate count and coliform count which act as indicators of over all post process contamination. Testing of dairy products or dairy plant environment samples for pathogens is seldomly performed. Therefore there is a need for testing of product, environmental samples as well as re-evaluation of processing and environmental control procedures at regular intervals for pathogens often encountered in dairy industry ⁽⁴⁾. M-Tryptone Glucose Extract Broth is used as non-selective general purpose media recommended by APHA ⁽¹⁾ for determination of bacterial counts in dairy products and water foods and other specimens respectively ^(2, 3).

Casein enzymic hydrolysate and beef extract provide the essential nutrients like amino acids, minerals and trace growth factors. Dextrose serves as the carbon source. About 2 ml of the broth medium is used to saturate sterile absorbent pads. Filters used for membrane filtration are then aseptically placed on these absorbent pads.

Methodology

Suspend 18 grams of powder media in 1000 ml distilled water. Shake well & boil with frequent agitation to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Quality Control

Physical Appearance

Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Light amber coloured clear solution without any precipitate

Reaction

Reaction of 1.8% w/v aqueous solution at 25°C. pH : 7.0±0.2

pH range

6.80-7.20





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Cultural Response/Characteristics

DM2116: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth
<i>Escherichia coli</i> ATCC 25922	50-100	luxuriant
<i>Salmonella Typhi</i> ATCC 6539	50-100	luxuriant
<i>Staphylococcus aureus</i> ATCC 25923	50-100	luxuriant

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.

Further Reading

1. American Public Health Association, 1960, Standard Methods for the Examination of Water and Wastewater, 11th Ed., APHA, New York.
2. Greenberg A. E., Trussell R. R. and Clesceri L. S. (Eds.), 1985, Standard Methods for the Examination of Water and Wastewater, 16th Ed., APHA, Washington, D.C.
3. Speck M. L., (Ed.), 1984, Compendium of Methods for the Microbiological Examination of Foods, 2nd Ed., APHA, and Washington, D.C.
4. American Public Health Association, 1992, Standard Methods for the Examination of the Dairy Products, 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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