



Technical Data

Yeast Glucose Chloramphenicol Agar

M1590

Yeast Glucose Chloramphenicol Agar is a selective agar recommended for enumerating yeasts and moulds in milk and milk products.

Composition**

Ingredients	Gms / Litre
Yeast extract	5.000
Glucose	20.000
Chloramphenicol	0.100
Agar	15.000
Final pH (at 25°C)	6.6±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 40.1 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and pour into sterile Petri plates.

Principle And Interpretation

Traditionally used acidified agar method for enumeration of yeasts and moulds in dairy products is now being replaced by antibiotic agar methods. Use of antibiotics rather than acid for suppressing bacteria results in improved recovery of injured (acid-sensitive) fungal cells, better control of bacteria and less interference during counting from precipitated food particles (1-5). Yeast Glucose Chloramphenicol Agar is recommended by APHA and the International Dairy Federation (6, 7). Yeast Glucose Chloramphenicol Agar is a nutrient medium that inhibits the growth of organisms other than yeasts and moulds due to the presence of chloramphenicol.

Yeast extract provides basic nutrients essential for growth. Glucose is a carbon and energy source. Chloramphenicol inhibits bacterial growth. After incubation at 25°C, colonies are counted and yeast colonies are distinguished from moulds by colony morphology. Refer appropriate references for standard procedures (6).

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Gelling

Firm, comparable with 1.5% Agar gel.

Colour and Clarity of prepared medium

Light amber coloured clear to slightly opalescent gel forms in Petri plates.

Reaction

Reaction of 4.0% w/v aqueous solution at 25°C. pH : 6.6±0.2

pH

6.40-6.80

Cultural Response

M1590: Cultural characteristics observed after an i)Fungal-incubated at 25-30°C for 2-7 days ii) Bacteria-incubated at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth	Recovery
Cultural Response			
* <i>Aspergillus brasiliensis</i> ATCC 16404	50-100	luxuriant	
<i>Candida albicans</i> ATCC 10231	50-100	luxuriant	≥50%

<i>Escherichia coli</i> ATCC 25922	$\geq 10^3$	inhibited	0%
<i>Lactobacillus casei</i> ATCC 9595	$\geq 10^3$	inhibited	0%
<i>Staphylococcus aureus</i> ATCC 25923	$\geq 10^3$	inhibited	0%
<i>Saccharomyces cerevisiae</i> ATCC 9763	50-100	luxuriant	$\geq 50\%$

Storage and Shelf Life

Store between 15-25°C in tightly closed container and prepared medium at 2-8°C. Use before expiry period on the label.

Reference

1. Beuchat L. R., 1979, J. Food Prot., 42:427-428.
2. Cooke W. B. and Brazis A. R., 1968, Mycopathol. Mycol. Appl., 35:281.
3. Koburger J. A., 1970, J. Milk Food Technol., 33:433-437.
4. Koburger J. A., 1973, J. Milk Food Technol., 36:434.
5. Overcast W. W., and Weakley D. J., 1969, J. Milk Food Technol., 32:442.
6. Marshall, (Ed), 1993, Standard Methods for Examination of Dairy Products, 16th Ed., American Public Health Association, Washington, D. C.
7. International Dairy Federation. Standard Method ISO/DIS 6611.

Revision : 2 / 2013



Disclaimer :

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal or therapeutic use but for laboratory, diagnostic, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.