Yeast Extract Chloramphenicol Dextrose Agar

Intended Use
Yeast Extract Chloramphenicol Dextrose Agar is used for selective enumeration of Yeasts and Moulds in milk and milk products.

Summary
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. Yeast Glucose Chloramphenicol Agar is recommended by APHA and the International Dairy Federation. 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.

Principle
The medium contains Yeast extract, which provides nitrogenous nutrients and vitamin B complex. Dextrose is the energy source. Chloramphenicol, a thermostable antibiotic, suppresses accompanying bacterial flora. This improves shelf-life of the prepared medium and the prepared medium can be used over a period of at least 4 months.

Formula*

Ingredients	**g/L**
Yeast Extract	5.0
Dextrose	20.0
Chloramphenicol	0.1
Agar	14.9
Final pH (at 25°C)	6.6 ± 0.2

*Adjusted to suit performance parameters.

Storage and Stability
Store below 8°C in tightly closed container, preferably in dessicators and use freshly prepared medium. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

Type of Specimen
Food and Dairy samples.

Specimen Collection and Handling
Ensure that all samples are properly labelled. Follow appropriate techniques for handling samples as per established guidelines. Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure. The samples must be stored and tested within the permissible time duration. After use, contaminated materials must be sterilized by autoclaving before discarding.

Directions
1. Suspend 40.00 g of the powder in 1000 mL purified / distilled water.
2. Mix thoroughly.
3. Boil with frequent agitation to dissolve the powder completely.
4. Sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.

Quality Control

Dehydrated Appearance: Light yellow coloured, homogenous, free flowing powder.
Prepared Appearance: Yellow to light amber coloured, slightly opalescent gel forms in petridishes.
Growth Promotion Test: Growth promotion is carried out in accordance with the harmonized method of USP/EP/JP/IP and growth is observed after an incubation at 30°C-35°C for 48 hours for bacteria and at 20°C25°C for ≤ 5 days for fungi.
Growth Promoting Properties: The test results observed are within the specified temperature and shortest period of time specified in the test, inoculating ≤100 cfu of appropriate microorganism at 20°C-25°C for ≤ 5 days.
Inhibitory Properties: No growth of the test microorganism occurs for the specified temperature and not less than the longest period of the time specified, inoculating > 100 cfu of the appropriate microorganism at 30°C-35°C for ≥ 72 hours.

Organism (ATCC)	**Growth**	**Incubation Temperature**
Candida albicans 3147 (10231)	Good	20°C-25°C
Candida albicans 3147 (10231)	Good	30°C-35°C
Saccharomyces cerevisiae NRRL Y-567 (9763)	Good	20°C-25°C
Aspergillus brasiliensis WLRI 034(120) (16404)	Good	20°C-25°C
Inhibitory		
Escherichia coli (8739)	Inhibited	30°C-35°C
Staphylococcus aureus subsp. *aureus* (6538)	Inhibited	30°C-35°C

Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

Precautions / Limitations

Further biochemical tests must be carried for further confirmation.

Warranty

This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

Reference

1. DIN Deutsches Institut fur Normung e.v. Reterenzverfahren DIN 10186.
2. International Organization for Standardization (ISO), Draft ISO/DIS 6611.
3. Internationaler Milchwirtschaftsverband: Internationaler IMVStandard 94 1980.
4. International Organization for Standardization (ISO), 1987, Draft ISO/DIS 7954.
5. Engel G., 1982, Milchwiss, 37:727.
6. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat. No.	**Product Description**	**Pack Size**
201250070100	Dehydrated Culture Media	100 g
201250070500	Dehydrated Culture Media	500 g