

Glucose Chloramphenicol Agar

Cat. 1094

Selective medium for the isolation and enumeration of yeasts and molds in milk and dairy products

Practical information

Applications	Categories
Selective enumeration	Yeasts and molds

Industry: Dairy products

Regulations: ISO 6611

Principles and uses

Glucose Chloramphenicol Agar is recommended by the International Dairy Federation (FIL-IDF) for the isolation and enumeration of yeasts and molds in milk and dairy products. This medium has been adopted by the DIN and ISO standards.

Yeast extract is the water-soluble portion of hydrolyzed yeast and is a source of vitamins, particularly of the B-group, and other growth nutrients that stimulate yeast and mold development. Glucose is the fermentable carbohydrate as a carbon and energy source. Chloramphenicol is an antibiotic which aids in isolating pathogenic fungi from heavily contaminated material, as it inhibits most contaminating bacteria. It is a recommended antibiotic for use with media due to its heat stability and wide bacterial spectrum. Bacteriological agar is the solidifying agent.

Formula in g/L

Glucose	20	Bacteriological agar	15
Chloramphenicol	0,2	Yeast extract	5

Preparation

Suspend 40,2 grams of the medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Sterilize in autoclave at 121 °C for 15 minutes. Cool to 50 °C, mix well and dispense into plates.

Instructions for use

According to ISO 6611:

- Transfer to an empty Petri dish 1 ml of the test sample, if liquid, or 1 ml of the initial suspension in the case of other products.
- Prepare dilutions if needed.
- Pour about 15 ml of the medium Glucose Chloramphenicol Agar previously melted and maintained at 45 °C in the water bath into each Petri dish.
- Carefully mix the inoculum with the medium by rotating the Petri dish and allow the mixture to solidify. The time taken between the preparation of the first dilution and the mixing of the inoculum with the medium shall not exceed 15 min.
- Incubate the dishes in an inverted position at 25 °C for 5 days.

Quality control

Solubility	Appearance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25°C)
w/o rests	Fine powder	Beige	Light amber	6,6±0,2

Microbiological test

Incubation conditions: (25-30 °C / 3-7 days).

Microorganisms	Specification
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Aspergillus spp
Candida albicans ATCC 2091
Escherichia coli ATCC 25922
Staphylococcus aureus ATCC 25923
Lactobacillus rhamnosus ATCC 9595

Good growth
Good growth
Inhibited growth
Inhibited growth
Inhibited growth

Storage

Temp. Min.:2 °C
Temp. Max.:25 °C

Bibliography

FIL-IDF(1991) Standard 94B. Enumeration of yeast and moulds. Colony Count Technique at 25 °C.
ISO (1981) ISO/DIS 6611: Milk and Milk products: Enumeration of yeast and moulds colony count technique at 25 °C.
DIN Standard 10186. Mikrobiologische Milchuntersuchung. Bestimmung der Anzahl von Hefen und Schimmelpilzen.