

GLUCOSE CHLORAMPHENICOL AGAR

CAT Nº: 1094

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

FORMULA IN g/l

Glucose	20.00	Chloramphenicol	0.20
Yeast Extract	5.00	Bacteriological Agar	15.00

Final pH 6.6 ± 0.2 at 25°C

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. The prepared medium should be stored at 8-15°C. The color is light amber.

The dehydrated medium should be homogeneous, free-flowing and beige in color. If there are any physical changes, discard the medium.

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.

Inoculate 0.1 ml of sample on medium surface. Incubate at 25 - 30°C and examine after 3 - 7 days. Report as number of colonies per gram of food.

MICROBIOLOGICAL TEST

The following results were obtained in the performance of the medium from type cultures after incubation at a temperature of 25-30°C and observed after 3-7 days.

Microorganisms	Growth
<i>Escherichia coli</i> ATCC 25922	Inhibited
<i>Candida albicans</i> ATCC 2091	Good
<i>Staphylococcus aureus</i> ATCC 25923	Inhibited
<i>Aspergillus spp</i>	Good
<i>Lactobacillus casei</i> ATCC 9595	Inhibited

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.

STORAGE

Once opened keep powdered medium closed to avoid hydration.

