# Yeast Glucose Chloramphenicol Agar

Selective medium for the isolation and enumeration of yeasts and moulds in foodstuffs.

## DESCRIPTION

Yeast Glucose Chloramphenicol Agar is a medium used for the selective isolation and enumeration of fungi. This medium complies with the recommendations of the International Dairy Federation (FIL-IDF) for the examination of milk and milk products.

TYPICAL FORMULA	(g/l)
Yeast Extract	5.0
Glucose	20.0
Chloramphenicol	0.1
Agar	18.0
Final pH 6.6 ± 0.2 at 25°C	

## METHOD PRINCIPLE

Yeast extract provide basic nutrients and is a good source of vitamins, particularly of B-group. Glucose is the fermentable carbohydrate. Chloramphenicol is the selective agent which inhibit the accompanying bacterial flora resulting in better recovery of injured fungal cells. Agar is the solidifying agent.

## PREPARATION

Dehydrated medium	Suspend 43.1 g of the powder in 1 liter of distilled or deionized water. Mix well. Heat to boil shaking frequently until completely dissolved. Sterilize in autoclave at 121°C for 15 minutes.
<u>Medium in bottles</u>	Melt the content of the bottle in a water bath at 100°C (loosing the cap partially removed) until completely dissolved. Then screw the cap and check the homogeneity of the dissolved medium, if it is the case turning the bottle upside down. Cool at 45-50°C, mix well avoiding foam formation and aseptically distribute into Petri dishes.

## TEST PROCEDURE

Prepare sample dilutions in 1/4-strength Ringer's Solution (ref. 81059) or other suitable diluent. Inoculate the medium by pour plating or spread plating method. Incubate aerobically at  $25 \pm 2^{\circ}$ C for up to 5 days.

## **INTERPRETING RESULTS**

Count colonies on all plates containing 15-300 colonies. Distinguish yeasts from molds by colony morphology. Report the count as yeasts and moulds per gram or per milliliter of sample allowing for dilution factors.

## APPEARANCE

Dehydrated medium: free-flowing, homogeneous, beige. Prepared medium: slightly opalescent, light amber.

## **STORAGE**

The powder is very hygroscopic, store the powder at 10-30°C, in a dry environment, in its original container tightly closed. Store bottles and prepared plates at 10-25°C away from light. Do not use the product beyond its expiry date on the label or if product shows any evidence of contamination or any sign of deterioration.

## SHELF LIFE

Dehydrated medium: 4 years. Medium in bottles: 2 years. Ready-to-use plates: 6 months.

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#### QUALITY CONTROL

Plates are inoculated with the microbial strains indicated in the QC table. Inoculum for productivity: 50-100 CFU. Inoculum for selectivity:  $10^4$ - $10^6$  CFU. Incubation conditions: aerobically at  $25 \pm 2^{\circ}$ C for up to 5 days.

#### QC Table.

Microorganism		Growth
Aspergillus brasiliensis	ATCC® 16404	Good
Candida albicans	ATCC® 10231	Good
Saccharomyces cerevisiae	ATCC® 9763	Good
Escherichia coli	ATCC® 25922	Inhibited

#### WARNING AND PRECAUTIONS

The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous. It is nevertheless recommended to consult the safety data sheet for its correct use. The product is intended for professional use only and must be used by properly trained operators.

#### **DISPOSAL OF WASTE**

Disposal of waste must be carried out according to national and local regulations in force.

#### **BIBLIOGRAPHY**

- 1. International Dairy Federation (2004) Standard Method ISO 6611/IDF 94.
- 2. Frank and Yousef (2004) In Frank and Wehr (ed.), Standard methods for the examination of dairy products 17<sup>th</sup> ed. American Public Health Association, Washington, D.C.
- 3. Koburger J. (1970) Fungi in foods: 1. Effect of inhibitor and incubation temperature on enumeration. J. Milk Food Technol. 33:433.
- 4. Cooke W.B., A.R. Brazis (1968) Occurance of molds and yeasts in dairy products. Mycopathol. Mycol. App. 35:281.

PRESENTATION		Contents	Ref.
Yeast Glucose Chloramphenicol Agar	90 mm ready-to-use plates	20 plates	10011
Yeast Glucose Chloramphenicol Agar	Bottles	6 x 100 ml bottles	403090
Yeast Glucose Chloramphenicol Agar	Bottles	6 x 200 ml bottles	413090
Yeast Glucose Chloramphenicol Agar	Dehydrated medium	500 g of powder	610070
Yeast Glucose Chloramphenicol Agar	Dehydrated medium	100 g of powder	620070
Yeast Glucose Chloramphenicol Agar	Dehydrated medium	5 kg of powder	6100705

#### TABLE OF SYMBOLS

LOT	Batch code	Keep away from sunlight	Manufacturer	Use by	Fragile, handle with care
REF	Catalogue number	Temperature limitation	$\sum_{\substack{n > \text{ tests}}} Contains sufficient for$	Caution, consult Instruction For Use	Do not reuse

