Chloramphenicol Glucose Agar (CGA)

Art. No. 01-366

DANGER
H: 3.6/1A; H350
P: P281-P201-P202-P308+P313-P405-P501a

Also known as

Yeast Extract-Glucose-Chloramphenicol Agar; YGC Agar; Yeast Extract-Dextrose-Chloramphenicol Agar; YDC Agar.

Specification

Solid and selective medium for the isolation and enumeration of fungi in milk and dairy products according to ISO 7954 and FIL-IDF 94B standards.

Formula* in g/L

Dextrose	20,00
Yeast extract	5,00
Chloramphenicol	0,10
Agar	15,00

Final pH 6,6 ± 0,2 at 25°C

* Adjusted and /or supplemented as required to meet performance criteria

Directions

Suspend 40 g of powder in 1 L of distilled water and let it soak. Bring to the boil and distribute into containers. Sterilize in the autoclave at 121°C for 15 minutes.

Description

This medium is recommended by the Federation International Laitière-International Dairy Federation (FIL-IDF) for the isolation and enumeration of fungi (moulds and yeast) in milk and dairy products. This medium has also been adopted by the DIN and ISO standards.

This medium's selectivity is due to the bactericidal action of chloramphenicol which, due to its thermostable it, may be sterilized with the medium in the autoclave. Also due to the pH being neutral, the medium is able to be re-melted several times without affecting its stability, selectivity and efficacy. Re-melting and overheating may make the medium darker.

Technique

Generally a stab inoculation method or pour plate method is used to inoculate the medium. Incubation is at 22-25°C for 4 to 5 days.

References

- DIN Standard 10186. Mikrobiologische Milch Untersuchung. Bestimmung der Anzahl von Hefen und Schimmelpilzen. Referenzverfahren.
- FIL-IDF 94B Standard (1991) Enumeration of yeast and moulds. Colony Count Technique at 25°C.
- ISO 7954 Standard (1987) General guidance for enumeration of yeast and moulds - Colony count at 25°C.
- ISO/TS 11133-1: 2009. Microbiology of food and animal feeding stuffs.- Guidelines on preparation and production of culture media. Part 1: General guidelines on quality assurance for the preparation of culture media in the laboratory.
- ISO/TS 11133-2: 2003 Corr. 2004. Microbiology of food and animal feeding stuffs.- Guidelines on preparation and production of culture media. Part 2: Practical guidelines on performance testing of culture media.

Storage

For laboratory use only. Keep tightly closed, away from bright light, in a cool dry place (+4°C to 30°C and <60% RH).

Quality control

Incubation temperature: 25°C ± 2,0
Incubation time: 48 h - 5 days
Inoculum: 10-100 CFU (Productivity) // 1.000-10.000 CFU (Selectivity). Spiral Plate Method (ISO/TS 11133-1/2)

Microorganism	Growth	Remarks
Bacillus cereus var. mycoides ATCC 11778	Inhibited	-
Escherichia coli ATCC 25922	Inhibited	-
Aspergillus brasiliensis ATCC 16404	Productivity > 0.70	Black sporulation at 5 days
Candida albicans ATCC 10231	Productivity > 0.70	-
Saccharomyces cerevisiae ATCC 9763	Productivity > 0.70	-

Candida albicans ATCC 10231