Technical Data Sheet

Yeast Glucose Chloramphenicol (YGC) Agar

Ordering number: 1.46465.0006

Yeast Glucose Chloramphenicol (YGC) Agar is suitable for the determination of the colony count of yeasts and molds in foodstuff.

The formulation of the basic medium conforms to the specifications of the § 35 LMBG (Lebensmittel- und Bedarfsgegenstandsgesetz, German Foodstuffs and Commodities Act) and DIN 10186.

Yeast Glucose Chloramphenicol (YGC) Agar is also available as 90 mm settle plates, single-bagged in transparent, hydrogen peroxide impermeable sleeves (non-irradiated) (article number 146348).

Mode of Action

Yeast extract provides the necessary carbon and nitrogen compounds, vitamins and trace elements for the growth of microorganisms. Glucose also serves as a carbon and energy source, the high concentration at the same time promotes the fungus growth and inhibits bacterial growth. Chloramphenicol inhibits the accompanying bacterial flora. The agar with a nearly neutral pH facilitates the growth of stressed yeast and molds.

Typical Composition

Yeast Extract	5 g/l
Glucose	20 g/l
Chloramphenicol	0.1 g/l
Agar	18 g/l

The appearance of the medium is clear and slightly brownish. The pH value is in the range of 6.2-7.0. The medium can be adjusted and/or supplemented according to the performance criteria required.

Application and Interpretation

The medium can be melted by placing in a boiling water bath as specified in ISO 11133. *Note: Avoid over heating the medium. Remove it from the boiling water bath once melted.* Transfer the molten medium in a thermostatically controlled water bath. Maintain temperature from 47°C to 50°C. It is recommended to use the medium as soon as possible.

The medium is incubated aerobically for 1-5 days, sometimes up to 4 weeks with a weekly read out, at 25 ± 1 °C.

The microscopic assessment (1:200- to 1:1000-fold magnification) is an important indication for the characterization of the cultivated yeasts and molds. The colonization forms (conidia, microconidia, sporangia, helical formations, spiked formations) are of essential importance for the characterization of the molds.

For the identification of yeasts and moulds the identification key of Deak and Beuchat (1996), compare Yarrow and Samson (1999), is recommended.

Storage and Shelf Life

The product can be used for sampling until the expiry date if stored upright, protected from light and properly sealed at +2 °C to +25 °C.

The testing procedures as described on the CoA can be started up to the expiry date printed on the label.

Disposal

Please mind the respective regulations for the disposal of used culture medium (e.g. autoclave for 20 min at 121 °C, disinfect, incinerate etc.).

Quality Control

Control Strains	ATCC #	Inoculum CFU	Incubation	Expected Results
Candida albicans	2091	10-100	4 d at 20-25 °C	good growth; whitish, dry colonies
Microsporum gypseum	24102	dense suspension	4 d at 20-25 °C	good growth; white, cotton-wool-like mycelium
Escherichia coli	8739	10,000-100,000	4 d at 20-25 °C	No growth

Please refer to the actual batch related Certificate of Analysis.

Literature

Ajello, L. and Hay, R.J. (1999): Medical Mycology. In: Collier, L., Balows, A., Sussman, M. (Eds.) Topley & Wilson‘s Microbiology and Microbial Infections. Arnold, London Sydney Auckland, Vol.IV.

Beuchat, L.R. and Hocking, A.D. (1990): Some considerations when analyzing foods for the presence of xerophlic fungi. J. Food Protect. **53**: 984-989.

Deak, T. and Beuchat, L. R. (1996): Yeasts in specific types of foods. Handbook of food spoilage yeasts. 61-96.

ISO 11133:2014: Microbiology of food and animal feed and water – Preparation, production, storage and performance testing of culture media

ISO 7218 AMD 1: 2013: Microbiology of food and animal feeding stuffs — General requirements and guidance for microbiological examinations

Yarrow, D. und Samson, R.A. (1999): Identifizierung von Hefen in Lebensmitteln. In Baumgart, J. (Ed.): Mikrobiologische Untersuchung von Lebensmitteln. Behr´s Verlag Hamburg, Kapitel V.

Ordering Information

Product	Cat. No.	Pack size
Yeast Glucose Chloramphenicol (YGC) Agar	1.46465.0006	6 x 200 ml bottles
Yeast Glucose Chloramphenicol (YGC) Agar	1.46348.0020	20 x 90 mm plates
Yeast Glucose Chloramphenicol (YGC) Agar	1.46348.0100	100 x 90 mm plates

Merck KGaA, 64271 Darmstadt, Germany
Fax: +49 (0) 61 51 / 72-60 80
mibio@merckgroup.com
www.merckmillipore.com/biomonitoring

Find contact information for your country at:
www.merckmillipore.com/offices
For Technical Service, please visit:
www.merckmillipore.com/techservice