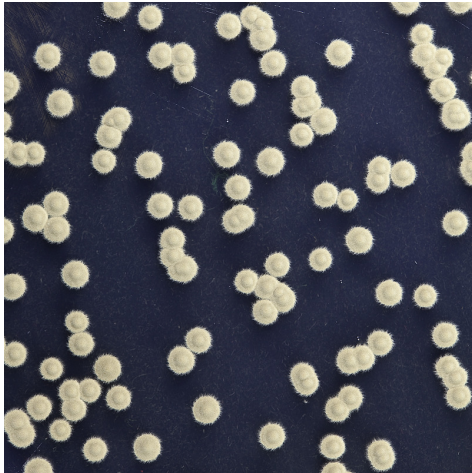


DG18 CHLORAMPHENICOL AGAR



DG18 Chloramphenicol Agar - Upper image: colonies of *Wallemia sebi*; lower image: colonies of *Eurotium rubrum*

INTENDED USE

Dehydrated culture medium with chloramphenicol for the enumeration of yeasts and molds in foods with water activity less than or equal to 0.95 (ISO 21527-2).

PRINCIPLE OF THE METHOD

The DG 18 (Dichloran 18% mass fraction glycerol) Agar Base with chloramphenicol and anhydrous glycerol, corresponds to the formulation described by ISO 21527-2 for plate counting of yeasts and molds in products intended for human consumption and in feed, with water activity less than or equal to 0.95 (dried fruit, confectionery, jam, salted fish, dried meat, cereals and products based on cereals, flour, spices and seasonings, etc.).

This procedure does not apply to products with water activity lower than 0.60 and does not apply to the enumeration of fungal spores of halophilous and xerophilous fungi.

TYPICAL FORMULA (G/L)*

Enzymatic Digest of Casein	5,00
Glucose	10,00
Bibasic Potassium Phosphate	1,00
Magnesium sulfate	0,50
Dichloran (2,6-dichloro-4-nitroanilina)	0,002
Agar	13,50
Chloramphenicol	0.10

* The culture medium can be adjusted to adapt its performance to specifications.

PREPARATION OF THE DEHYDRATED CULTURE MEDIUM

Dissolve 30.1 g in 1 liter of distilled cold water, and heat to completely dissolve the powder. Add 110 g of anhydrous glycerol (Ref. 421015). Sterilize in autoclave at 121 ° C for 15 minutes. Cool to a temperature below 50 ° C in a temperature controlled water bath between 44 to 47 ° C. Mix and distribute 15 mL in sterile Petri dishes. Avoid keeping the medium exposed to light.

CHEMICAL AND PHYSICAL CHARACTERISTICS

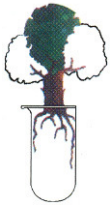
Powder appearance: fine, homogeneous, beige coloured

Ready to use medium appearance: clear beige

Final pH 5.6 ± 0.2

METHOD

- Prepare the suspension of the sample and its decimal dilutions according to the specific applicable international standard.
- Transfer with a sterile pipette 0.1 mL of sample if liquid or 0.1 mL of the initial dilution (10-1) for solid samples. In order to facilitate the counting of low numbers of yeasts and moulds it is possible to distribute 0.3 mL in aliquots of 0.1 mL on three different plates.
- Repeat the procedure for subsequent dilutions using a sterile pipette for each dilution. For solid samples it is recommended by ISO to directly inoculate the plate: this type of samples are disinfected on the surface with a sodium hypochlorite 0.35% solution with a contact time of 2 minutes, then rinsed with sterile distilled water, dried with sterile paper and eventually positioned on the surface of the medium in the plate.
- with a loop, distribute the inoculum on the surface of the plates, until it is completely absorbed by the agar.
- Incubate non-inverted plates at 25 ± 1 ° C in an aerobic atmosphere



- Read the plates after 2-5-7 days of incubation. Select plates containing less than 150 colonies and selectively count all the various morphologies of colonies (yeast, fungal, etc.). If you suspect the presence of *Xeromyces bisporus*, incubate the plates for up to 10 days.
- Report the number of colonies (possibly differentiating by type) per gram of sample.

QUALITY CONTROL

It is user's responsibility to carry out the quality control in accordance with the regulations in force and according to his own Laboratory experience. The following table shows some useful strains for quality control.

STRAINS		INCUBATION	RESULTS	
<i>S. cerevisiae</i>	ATCC 9763	25°- 5 days -A	good growth, typical colonies	A/C ≥0,5
<i>Wallebia sebi</i>	ATCC 42694	25°- 5 days -A	good growth, typical colonies	A/C ≥0,5
<i>As. restrictus</i>	ATCC 42693	25°- 5 days -A	good growth, typical colonies	A/C ≥0,5
<i>Eurotium rubum</i>	ATCC 42690	25°- 5 days -A	good growth, typical colonies	A/C ≥0,5
<i>E. coli</i>	ATCC 25922	25°- 5 days -A	inhibited	
<i>B. subtilis</i>	ATCC 6633	25°- 5 days -A	inhibited	

A: Anaerobic Incubation

ATCC is the trade mark of the American Type Culture Collection

STORAGE

Dehydrated culture medium: store at 10-30° C in the dark. In these conditions the product is valid until the expiration date indicated on the label. Do not use after this date. Discard the medium if there are signs of deterioration.

Ready-to-use plates: store in the dark at 2-8° C until the expiration date shown on the label.

PRECAUTIONS

The preparation described here contains chloramphenicol. Consult the safety data sheet before use. As for all the dehydrated culture media, the manipulation of DG18 Chloramphenicol Agar must be carried out with adequate protection of the respiratory tract.

PRODUCTS

Description	Type	Ref. N°	Package
DG18 CHLORAMPHENICOL AGAR	Dehydrated culture medium	401394C2	500 g (16,6 L)
DG18 CHLORAMPHENICOL AGAR	Ready-to-use plates	541394	20 plates

REFERENCES

- ISO 21527-2 Microbiology of food and animal feeding stuffs -- Horizontal method for the enumeration of yeasts and moulds -- Part 1: Colony count technique in products with water activity less than or equal to 0,95



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