



**Biolife**

# Technical Sheet

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## DRBC CHLORAMPHENICOL AGAR

### INTENDED USE

Dehydrated culture medium with chloramphenicol for the enumeration of yeasts and molds in food and feed with water activity above 0.95 (ISO 21527-1).

### PRINCIPLE OF THE METHOD

The DRBC (Dichloran Rose Bengal Chloramphenicol) Agar medium corresponds to the formulation described by ISO 21527-1 for plate counting of yeasts and molds in products intended for human consumption and feed, with water activity above 0,95 (eggs, meat, dairy products, excluding milk powder, fruit, vegetables, fresh pasta, etc.) The procedure described here does not apply to the count of fungal spores and heat-resistant fungi.

The DRBC Agar medium is a modification of the Rose Bengal Agar and contains dichloran which, in combination with rose bengal, inhibits fungal over-growth producing excess development of aerial mycelia.

### TYPICAL FORMULA (G/L)\*

Enzymatic digest of animal and plant tissue	5
D-Glucose	10
Potassium dihydrogenphosphate	1
Magnesium sulphate	0,5
Dichloran (2,6-dichloro-4-nitroaniline)	0,002
Rose Bengal	0,025
Chloramphenicol	0.1
Agar	15

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

### PREPARATION OF THE DEHYDRATED CULTURE MEDIA

Dissolve 31.6 g in 1 liter of distilled cold water, and heat to completely dissolve the powder. 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 CHARACTERISTIC

Powder appearance: fine, homogeneous pink colored

Ready to use medium appearance: clear violet

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 count 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.
- With of 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 days of incubation. Select plates containing less than 150 colonies and selectively count all the various morphologies of colonies (yeast, fungi, etc.).
- Report the number of colonies (possibly differentiating by type) per gram of sample.



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### 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°- 72H-A	good growth, typical colonies	A/C ≥0,5
<i>C. albicans</i>	ATCC 10231	25°- 72H-A	good growth, typical colonies	A/C ≥0,5
<i>P. chrysogenum</i>	ATCC 10106	25°- 72H-A	good growth, typical colonies	A/C ≥0,5
<i>A. brasiliensis</i>	ATCC 16404	25°- 72H-A	good growth, typical colonies	A/C ≥0,5
<i>Mucor racemnosus</i>	ATCC 42647	25°- 72H-A	good growth, typical colonies	A/C ≥0,5
<i>E. coli</i>	ATCC 25922	25°- 72H-A	inhibited	
<i>B. subtilis</i>	ATCC 6633	25°- 72H-A	inhibited	

A: Anaerobic Incubation

ATCC is the trade mark of the American Type Culture Collection

A / C (Productivity Report): UFC ON THE TESTED MEDIUM / UFC ON SABOURAUD DEXTROSE AGAR

### 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

Descrizione	Tipo	Cat. N°	Confezione
DRBC CHLORAMPHENICOL AGAR	Dehydrated culture medium	401393C2	500 g (15,8 L)
DRBC CHLORAMPHENICOL AGAR	Ready-to-use plates 90 mm	541393	20 plates

### REFERENCES

ISO 21527-1 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 greater than 0,95



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