

## DRBC Agar Base

Basal medium for the enumeration of yeasts and moulds, according to ISO 21527.

TYPICAL FORMULA	(g/l)
Enzymatic Digest of Animal and Plant Tissues	5.0
Glucose	10.0
Potassium Dihydrogenphosphate	1.0
Magnesium Sulfate	0.5
Dichloran (2,6-dichloro-4-nitroanile)	0.002
Rose Bengal	0.025
Agar	15.0
Final pH 5.6 ± 0.2 at 25°C	

### DESCRIPTION

DRBC Agar Base (Dichloran Rose Bengal Chloramphenicol) is a selective medium used with supplements for the enumeration of yeasts and moulds, according to ISO 21527.

### PRINCIPLE

Enzymatic digest of plant and animal tissues provides carbon, nitrogen, vitamins and minerals required for organism growth. Glucose is an energy source. Phosphate is a buffering agent. Magnesium sulfate is a source of divalent cations and sulfate. The antifungal agent, dichloran, is included to reduce colony diameters of spreading fungi. Rose bengal suppresses the growth of bacteria and restricts the size and height of colonies of the more rapidly growing moulds. Inhibition of bacterial growth and restriction of spreading of more-rapidly growing moulds aids in the isolation of slow-growing fungi. Also the low pH serves to prevent the growth of most bacteria. Agar is the solidifying agent. Chloramphenicol is added to the medium to inhibit the growth of bacteria present in environmental and food samples.

### PREPARATION

Suspend 31.5 g of the powder in 1 liter of purified water. Mix thoroughly. Heat with frequent agitation and boil for 1 minute to completely dissolve the powder. Add rehydrated content of 2 vials (6 ml) of Chloramphenicol Supplement (ref. 81017). Autoclave at 121°C for 15 minutes. Cool to 45-50°C. Pour into Petri dishes.

### TECHNIQUE

Inoculate 0.1 ml of sample and/or appropriate decimal dilutions of sample by streaking over the entire surface of the agar. Incubate plates aerobically at 25°C for up to 5 days. Examine for growth of yeasts and moulds daily after 2 days incubation.

### INTERPRETATION OF RESULTS

Colonies of yeast appear pink due to the uptake of rose bengal. Where identification is necessary, extend incubation until morphological characteristics are more evident and/or perform microscopic examination. Report the results as colony-forming units per gram or milliliter of sample.

### STORAGE

The powder is very hygroscopic, store the powder at 10-30°C, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident. Store prepared plates at 2-8°C away from light.

### 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 must be used only by properly trained operators.

### DISPOSAL OF WASTE

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

### REFERENCES

1. ISO 21527: 2008 Microbiology of food and animal feeding stuffs -- Horizontal method for the enumeration of yeasts and moulds
2. King, Hocking and Pitt. 1979. *Appl. Environ. Microbiol.* 37:959.
3. Beuchat and Cousin. 2001. *In* Downes and Ito (ed.). *Compendium of methods for the microbiological examination of foods*, 4th ed. American Public Health Association. Washington, D.C.
4. U.S. Food and Drug Administration. 1995. *Bacteriological analytical manual*, 8th ed. AOAC International, Gaithersburg, Md.
5. Banks, Board and Paton. 1985. *Lett. Appl. Microbiol.* 1:7.



## PRODUCT SPECIFICATIONS

### NAME

DRBC Agar Base

### PRESENTATION

Dehydrated medium

### STORAGE

10-30°C

### PACKAGE

Ref.	Content	Packaging
610237	500 g	500 g of powder in plastic bottle
610237	500 g	500 g of powder in plastic bottle

### pH OF THE MEDIUM

5.6 ± 0.2

### USE

DRBC Agar Base (Dichloran Rose Bengal Chloramphenicol) is a selective medium used with supplements for the enumeration of yeasts and moulds, according to ISO 21527

### TECHNIQUE

Refer to technical sheet of the product

### APPEARANCE OF THE MEDIUM

#### Dehydrated medium

Appearance: free-flowing, homogeneous

Colour: pink

#### Prepared medium

Appearance: very slightly to slightly opalescent

Colour: bright pink

### SHELFLIFE

4 years

### QUALITY CONTROL

- Control of general characteristics, label and print
- Sterility control  
7 days at 22 ± 1°C, in aerobiosis  
7 days at 36 ± 1°C, in aerobiosis
- Microbiological control  
Inoculum for productivity: 10-100 CFU/ml  
Inoculum for selectivity: 10<sup>4</sup>-10<sup>5</sup> CFU/ml  
Incubation conditions: 2-5 days at 25-30°C, in aerobiosis

#### Microorganism

*Aspergillus niger*

ATCC® 16404

#### Growth

Good

*Candida albicans*

ATCC® 10231

Good

*Escherichia coli*

ATCC® 25922

Inhibited

### TABLE OF SYMBOLS

 <b>LOT</b>	Batch code	 Keep away from heat sources	 Manufacturer	 Use by	 Fragile, handle with care
 <b>REF</b>	Catalogue number	 Temperature limitation	 Contains sufficient for <n> tests	 Consult instructions for use	



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