

## DRBC (DICHLORAN ROSE BENGAL CHLORAMPHENICOL) AGAR BASE DRBC (DICHLORAN ROSE BENGAL CHLORAMPHENICOL) AGAR + CAF

**(ISO 21527-1)**
**IVD in Class A, EU Reg. 2017/746**

 For in vitro diagnostic use **IVD**

DRBC Agar is used for the enumeration of yeasts and molds.

### DESCRIPTION

DRBC (Dichloran Rose Bengal Chloramphenicol) Agar is based on the Dichloran Rose Bengal Chlortetracycline Agar formula described by King, Hocking and Pitt. DRBC Agar conforms with APHA guidelines for the mycological examination of foods, containing chloramphenicol rather than chlortetracycline as originally proposed. DRBC Agar is a selective medium that supports good growth of yeasts and molds.

### PRINCIPLE

Peptone provides nitrogen, vitamins and minerals. Dextrose is a carbohydrate source. Phosphate is a buffering agent. Magnesium sulfate is a source of divalent cations and sulfate. The antifungal agent, dichloran, is added to the medium to reduce colony diameters of spreading fungi. The pH of the medium is reduced from 7.2 to 5.6 for improved inhibition of the spreading fungi. The presence of rose bengal in the medium suppresses the growth of bacteria and restricts the size and height of colonies of the more rapidly growing molds. The concentration of rose bengal is reduced from 50 µg/mL to 25 µg/mL as found in Rose Bengal Chloramphenicol Agar for optimal performance with dichloran. Chloramphenicol is included in this medium to inhibit the growth of bacteria present in environmental and food samples. Inhibition of growth of bacteria and restriction of spreading of more-rapidly growing molds aids in the isolation of slow-growing fungi by preventing their overgrowth by more-rapidly growing species. In addition, rose bengal is taken up by yeast and mold colonies, which allows these colonies to be easily recognized and enumerated. Reduced recovery of yeasts may be encountered due to increased activity of rose bengal at pH 5.6. Agar is the solidifying agent.

### DRBC (DICHLORAN ROSE BENGAL CHLORAMPHENICOL) AGAR BASE:

COMPOSITION	g/L
Peptone	5.0
Dextrose	10.0
Monopotassium Phosphate	1.0
Magnesium Sulfate	0.5
Dichloran	0.002
Rose Bengal	0.025
Agar	15.0

**Final pH 5,6 ± 0,2 at 25°C**

### SUPPLEMENT: CHLORAMPHENICOL SELECTIVE SUPPLEMENT (REF. 16005):

COMPOSITION	500 mL/ DRBC AGAR BASE
Chloramphenicol	50.0 mg

### PREPARED MEDIUM: DRBC AGAR + CAF:

COMPOSITION	
DRBC AGAR BASE	1000 mL
Chloramphenicol	100 mg

**Final pH 5,6 ± 0,2 at 25°C**

### WARNING AND PRECAUTIONS

#### For in vitro diagnostic use.

Observe the precautions normally taken when handling laboratory reagents.

**Dehydrated medium: HIGHLY HYGROSCOPIC.** During the handling, wear dust protection mask. Avoid the eye contact. Do not use beyond the expiration date or if the product shows signs of deterioration, an altered color or has compacted.

**Prepared Medium:** The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous.

**Safety Data Sheet** is available on request for professional users.

All waste must be disposed of according to local directives.

### STORAGE AND STABILITY

<b>Dehydrated medium:</b>	10-30°C
<b>Prepared medium:</b>	10-25°C

The product is stable until the expiration date indicated on the label under the recommended storage conditions.

### PREPARATION

**Dehydrated medium:** Suspend 15.75 g of powder in 500 mL of deionized or distilled water. Bring to boil and shake until completely dissolved. Add the reconstituted content of a vial of Chloramphenicol Supplement (REF. 16005). Sterilize at 121°C for 15 minutes. Cool up to 45-50°C. Pour in Petri dishes.

**Prepared medium (bottles):** Melt the content of the bottle in a water bath at 100°C until completely dissolved. Then screw the cap and check the homogeneity of the dissolved medium, if it is the case turning the bottle upside down. Cool at 45-50°C, mix well avoiding foam formation and aseptically distribute into Petri dishes.

### PROCEDURE

- Inoculate 0.1 mL of appropriate decimal dilutions of the sample in duplicate onto the surface of DRBC Agar plates. The plates should be dried overnight at room temperature. Spread the inoculum over the entire surface of the plate using a sterile, bent-glass rod.
- Incubate plates upright at 22-25°C. Examine for growth of yeasts and molds after 3, 4 and 5 days incubation.

### RESULTS

Colonies of molds and yeasts should be apparent within 5 days of incubation. Colonies of yeast appear pink due to the uptake of rose bengal. Report the results as colony-forming units per gram or milliliter of sample.

### QUALITY CONTROL

**Dehydrated medium:** Pink, free-flowing, homogeneous.

**Prepared medium:** Bright pink, very slightly to slightly opalescent.

### Typical response after incubation at 25°C for up to 5 days:

MICROORGANISM	GROWTH
Aspergillus niger ATCC 1015	Good
Candida albicans ATCC 10231	Good
Escherichia coli ATCC 25922	None to poor
Micrococcus luteus ATCC 10240	None to poor

### REFERENCES

- King, Hocking and Pitt. 1979. Appl. Environ. Microbiol. 37:959.
- 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.
- U.S. Food and Drug Administration. 2001. Bacteriological analytical manual, online. AOAC International, Gaithersburg, Md.
- Banks, Board and Paton. 1985. Lett. Appl. Microbiol. 1:7.
- ISO/DIS 21527-1: 2008: 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.

PRESENTATION	Packaging	REF.
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**DRBC (DICHLORAN ROSE BENGAL CHLORAMPHENICOL) AGAR BASE**  
**500 g (15.8 L) 10144**

**Supplements:**

**CHLORAMPHENICOL SELECTIVE SUPPLEMENT**  
**10 Bottles 16005**

A bottle of Chloramphenicol Selective Supplement is used to prepare 500 ml of selective medium. For each 500 g pack of base medium (Ref. 10144) approximately 3 packs of 16005 are required.

**Prepared medium:**

**DRBC (DICHLORAN ROSE BENGAL CHLORAMPHENICOL) AGAR + CAF**  
**6 x 100 mL Bottles 63385**  
**6 x 200 mL Bottles 63285**  
**12 x 200 mL Bottles 70032**  
**20 pcs (90 mm ready-to-use plates) 2361702/20**

**SYMBOLS**



Read the instructions



Biological hazard



CE Mark (product complies with the requirements of Regulation (EU) 746/2017)



Temperature limitation



Use by



For in vitro diagnostic use



Manufacturer