

DRBC AGAR BASE

**A basal medium for the enumeration of yeasts and moulds
in foods and animal feeding stuffs with water activity greater than 0,95 (ISO 21527-1)**

TYPICAL FORMULA (g/L)

Enzymatic digest of animal and plant tissue	5
D-Glucose (C ₆ H ₁₂ O ₆)	10
Potassium dihydrogenphosphate (KH ₂ PO ₄)	1
Magnesium sulphate (MgSO ₄ .H ₂ O)	0,5
Dichloran (2,6-dichloro-4-nitroaniline)	0,002
Rose Bengal	0,025
Agar	15

DIRECTIONS

Suspend 15.5 g in 500 ml of cold distilled water. Reconstitute one vial of Chloramphenicol Antimicrobial Supplement (REF 4240003) as directed and add the contents to DRBC Agar Base. Sterilize by autoclaving at 121 °C for 15 minutes. Cool to below 50 °C in a water bath maintained at a temperature of 44 °C to 47 °C. Mix well and distribute 15 ml amounts into sterile Petri dishes. Final pH 5,6 ± 0.2

DESCRIPTION

DRBC (Dichloran Rose Bengal Chloramphenicol) Agar Base, supplemented with Chloramphenicol, is recommended by ISO 21527-1 for the enumeration of yeasts and moulds in products intended for human consumption or feeding the animals, having a water activity greater than 0,95 (eggs, meat, dairy products -except milk powder-, fruits, vegetables, fresh pastes, etc.) by means of the colony count technique. The procedure here described is not useful for the enumeration of mould spores and heat-resistant fungi.

The medium is a modification of Rose Bengal Agar and is prepared according to the formulation described by ISO 21527-1. Dichloran, used in combination with Rose Bengal, in DRBC Agar Base inhibits the overgrowth and spreading of moulds.

TECHNIQUE

Prepare the test portion, initial suspension, and further dilution according to the specific International Standard appropriate to the product concerned.

- On to one DRBC Agar plate using a fresh sterile pipette, transfer 0.1 ml of the first decimal dilution (10⁻¹), (liquid product) or 0,1 ml of the 10⁻² dilution (other products). To facilitate enumeration of low populations of yeasts and moulds, volume up to 0,3 ml of 10⁻¹ dilution of sample, or of test sample if liquid, can be spread on to three plates.
- Repeat these operation with subsequent dilutions, using a new sterile pipette for each decimal dilution.
- Spread the liquid over the surface of the agar with a sterile spreader, until the liquid is completely absorbed into the medium.
- Incubate aerobically the inoculated plates in an upright position at 25 ± 1 °C.
- Read the plates between 2 days and 5 days of incubation. Select the dishes containing less than 150 colonies/propagules/germs and count these colonies/propagules/germs,
- Report as number of colonies/propagules/germs per gram of food.

QUALITY CONTROL

(25 ± 1 °C, 5 DAYS)

Productivity

S.cerevisiae ATCC 9763: growth

C.albicans ATCC 10231: growth

Aspergillus niger ATCC 16404 growth with limited colony spreading

Mucor racemosus ATCC 42647 growth with limited colony spreading

Selectivity

E.coli ATCC 25922: inhibited

APPEARANCE

Dehydrated medium: pink, homogeneous, fine, free flowing powder.

Prepared medium: violet, limpid

STORAGE AND PRECAUTIONS

Keep the bottle tightly closed away from bright light at 10-30°C and use before the expiry date on the label.

This product is classified as "non hazardous" according to EU Directives and doesn't include hazardous ingredients in a concentration $\leq 1\%$ and than doesn't require special labels.

In any case the culture media in powder form should be handled according to Good Laboratory Practices avoiding dust inhalation, contact with eyes and skin, and clothing.

Store the prepared plates of medium at 2-8°C in the dark.

REFERENCE

ISO/DIS 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

PACKAGING

4013932 DRBC Agar Base 500 g (16.1 L)