



TECHNICAL DATA SHEET

AS-1212

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Dichloran-Rose Bengal Chloramphenicol Agar (DRBC)

Selective Medium for Enumeration of Yeasts and Moulds

Document Control

Version 1.0 · Reviewed 04 September 2025

Technical Review

Hassan Salimi, Technical Director, AuSaMicS Pty Ltd (18+ years culture media formulation)

Product Identification

Product Name	Dichloran-Rose Bengal Chloramphenicol Agar (DRBC)
Catalogue Number	AS-1212
Medium Type	Selective fungal culture medium
Format	Dehydrated powder
Manufacturer	AuSaMicS Pty Ltd, Melbourne, Australia

Intended Use

Selective medium for the isolation and enumeration of yeasts and moulds in food, feed, and environmental samples with water activity (aw) greater than 0.95, per ISO 21527-1 and FDA-BAM M183.

Mode of Action

Peptone and glucose support fungal growth. Rose Bengal and the reduced pH (5.6) inhibit bacterial growth and restrict fungal colony size. Dichloran further limits radial spreading of fast-growing moulds such as *Rhizopus* and *Mucor*. Chloramphenicol, a heat-stable antibiotic, provides broad-spectrum bacterial suppression. Together these components allow accurate enumeration of yeasts and moulds in mixed microbial populations.

Formulation (per litre)

Ingredient	Quantity	Function
Peptone	5.0 g	Nitrogen and growth factor source
Glucose (Dextrose)	10.0 g	Primary carbon and energy source
Potassium Dihydrogen Phosphate (KH ₂ PO ₄)	1.0 g	Buffering system
Magnesium Sulfate (MgSO ₄ ·7H ₂ O)	0.5 g	Essential ions for fungal metabolism
Rose Bengal	0.025 g	Partial bacterial inhibition; restricts colony size
Dichloran	0.002 g	Limits spreading of fast-growing moulds
Chloramphenicol	0.1 g	Broad-spectrum bacterial inhibition



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Agar	15.0 g	Solidifying agent
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Total: 31.627 g/L **Final pH: 5.6 ± 0.2 at 25°C**

Rose Bengal photo-oxidises under light exposure to form compounds toxic to fungi. Store dehydrated medium, prepared plates, and incubating cultures protected from light at every stage. Formulation cross-checked against Merck GranuCult, HiMedia, and FDA-BAM M183 technical documentation.

Preparation

- Suspend 31.63 g of dehydrated medium in 1 L purified water
- Heat with agitation until completely dissolved
- Sterilise by autoclaving at 121°C for 15 minutes
- Cool to 45–50°C and pour into sterile Petri dishes, protected from light

Incubation Conditions

Parameter	Condition
Temperature	25°C
Time	Up to 5 days; interim read at day 3
Light	Dark or subdued light throughout

Quality Control — Cultural Response

Organism	ATCC No.	Expected Result
<i>Aspergillus niger</i>	16404	Good growth, restricted colony diameter
<i>Saccharomyces cerevisiae</i>	9763	Good growth
<i>Escherichia coli</i>	25922	Inhibited / no growth (bacterial suppression control)

Storage & Shelf Life

Dehydrated medium	15–30°C, dry, tightly sealed, protected from light — 24 months
Prepared plates	2–8°C, protected from light

Do not use if contamination, dehydration, or colour change is observed.

Literature & References



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- King, A.D., Hocking, A.D., Pitt, J.I. (1979). Dichloran-rosebengal medium for enumeration and isolation of moulds from foods. *Applied and Environmental Microbiology*, 37(5), 959–964.
- ISO 21527-1:2008. Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of yeasts and moulds — Part 1.
- U.S. Food and Drug Administration. Bacteriological Analytical Manual (BAM), Media M183: Dichloran Rose Bengal Chloramphenicol (DRBC) Agar.

For laboratory use only. Not intended for medical, veterinary, or food consumption. Refer to the Safety Data Sheet (SDS) before use. AuSaMicS Pty Ltd (ABN 56 676 640 467) accepts no liability for results obtained outside the stated preparation and storage conditions.