



PRODUCT DATA SHEET

DICHLORAN ROSE BENGAL CHLORAMPHENICOL AGAR (DRBC AGAR) (as per ISO 21527) TM 1852

For selective isolation of yeasts and molds of significance in food spoilage

Composition

| Ingredients | Gms/Ltr. |
|--------------------------------|----------|
| Agar | 15.000 |
| Dextrose | 10.000 |
| Peptic digest of animal tissue | 5.000 |
| Mono potassium phosphate | 1.000 |
| Magnesium sulphate | 0.500 |
| Chloramphenicol | 0.100 |
| Rose bengal | 0.025 |
| Dichloran | 0.002 |

*Dehydrated powder, hygroscopic in nature, store, in a dry place in tightly-sealed containers below 25°C and protect from direct Sunlight.

Instructions for use

Dissolve 31.63gms in 1000ml distilled water. Gently heat to boiling, with gentle swirling to dissolve the medium completely. Sterilize by autoclaving at 15 psi (at 121°C) for 15 minutes. **DO NOT OVERHEAT.** Mix well. Cool to 45-50°C and dispense as desired.

Appearance: Pink colour, clear to slightly opalescent gel

pH (at 25°C): 5.6 ± 0.2

Principle

DRBC (Dichloran Rose Bengal Chloramphenicol) Agar (as per ISO) is a modification of original Rose Bengal Chloramphenicol agar by adding Dichloran. DRBC Agar is a selective medium that supports good growth of yeasts and molds.

Peptic digest of animal tissue serves as a source of nitrogen, vitamins and minerals. Dextrose is a carbon and energy source. Magnesium sulfate provides divalent cations and sulfate. Monopotassium phosphate is a buffering agent. Dichloran is an antifungal agent used to reduce the colony diameter of spreading fungi. The presence of rose bengal in the medium suppresses the growth of bacteria and restricts the size and colonies of the more rapidly growing moulds. Chloramphenicol is included 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 moulds aids in the isolation of slow-growing fungi by preventing



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their overgrowth by more-rapidly growing species. Additionally Rose Bengal is taken by yeast and moulds colonies, which allows these colonies to be easily recognized and enumerated.

Interpretation

Cultural characteristics observed after inoculating (10^3 - 10^4 CFU/ml), for incubation period of 6 days at $25 \pm 2^\circ\text{C}$.

| Microorganisms | ATCC | Inoculum (CFU/ml) | Growth |
|---------------------------------|-------|-------------------|----------------|
| <i>Candida albicans</i> | 10231 | 10^3 | Good-luxuriant |
| <i>Saccharomyces cerevisiae</i> | 9763 | 10^3 | Good-luxuriant |
| <i>Escherichia coli</i> | 25922 | 10^4 | Inhibited |
| <i>Bacillus subtilis</i> | 6633 | 10^4 | Inhibited |

References

1. King, Hocking and Pitt. 1979. Appl. Environ. Microbiol. 37:959
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3. Beuchat, L.R., and Hwang, C.A. 1996. Int. J. Food Microbiol. **29**:161-166.
4. Beckers, H.J., et al. 1982. Int. Stand. Org. Document ISO/TC34/SC9/N151.