17147 Dichloran Rose bengal Agar, Base (Dichloran Rose bengal Chloramphenicol Agar, DRBC Agar)

For selective isolation and enumeration of fungi-yeasts and moulds of significance in food spoilage.

Composition:

Ingredients	Grams/Litre
Peptic digest of animal tissue	5.0
Dextrose	10.0
Monopotassium phosphate	1.0
Magnesium sulfate	0.5
Rose bengal	0.025
Dichloran	0.002
Agar	15.0
Final pH 5.6 +/- 0.2 at 25°C	

When stored at 2-8°C in the dark, the shelf life of plates is approximately 1 week and in bottles approx. 2 months. Store dehydrated powder, in a dry place, in tightly-sealed containers at 2-25°C.

Directions:
Suspend 15.75 g in 500 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 121°C for 15 minutes. Cool to 50°C and aseptically add sterile reconstituted contents of 1 vial of Chloramphenicol Selective Supplement (Cat. No 29231). Mix well and pour into sterile petri plates. The appearance of the prepared medium is clear and pink.
Add 40 ml of food sample to 200 ml of 0.1% Peptone water (Cat. No 70179) and shake periodically for 30 minutes (3) or process in stomacher for 30 seconds (4). Inoculate 0.1 ml of this sample on Dichloran Medium Base with Rose Bengal. Report the number of colonies per gram of food.

Principle and Interpretation:
Dichloran Medium Base with Rose Bengal (DRBC) is formulated as described by King et al (1), which is a modification of Rose Bengal Chloramphenicol Agar (RBC, Cat. No 17211) (2). DRBC is recommended for the selective isolation and enumeration of yeasts and moulds of importance in food spoilage. Dichloran inhibits spreading of moulds such as Rhizopus and Mucor and restricts colony sizes. Chloramphenicol inhibits bacterial growth (gram-negatives). Dichloran Medium Base with Rose Bengal (DRCB) is used along with Rose Bengal Chloramphenicol Agar (RBC, Cat. No 17211) where it is necessary to enumerate yeasts in the presence of moulds. Peptic digest of animal tissue provides the carbon and nitrogen sources which are essential for growth. Dextrose is the fermentable carbohydrate. Monopotassium phosphate is the buffering agent and Magnesium sulfate provides necessary trace elements.

Cultural characteristics after 3-5 days at 25°C.

Organisms (ATCC)	Growth
Mucor racemosus (42647)	++
Saccharamyces cerevisiae (9763)	++
Bacillus subtilus (6633)	-
Escherichia coli (25922)	-

References:
1. King D.A. Jr., Hocking A.D. and Pitt J.I., Dichloran-rose bengal medium for enumeration and isolation of moulds from foods, J. AppI. Environ. Microbiol., 37, 959 (1979)
2. Jarvis B., Comparison of an improved rose-bengal-chlortetracycline agar with other media for the selective isolation and enumeration of moulds and yeasts in food, J. Appl. Bact., 36, 723 (1973)
3. Sharf J.M. (Ed.), American Public Health Association, 2nd ed., New York (1966)
4. Sharp A.N., Jackson A.K., J Appl. Bact. 24, 17 (1972)

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.