

TM 982 – DICHLORAN GLYCEROL MEDIUM BASE W/ROSE BENGAL

INTENDED USE

For selective isolation and enumeration of yeasts and moulds from food samples.

PRODUCT SUMMARY AND EXPLANATION

Dichloran Medium Base with Rose Bengal is formulated as described by King et al, which is a modification of Rose Bengal Chloramphenicol Agar. Dichloran Medium Base with Rose Bengal is used along with Rose Bengal Chloramphenicol Agar where it is necessary to enumerate yeasts in the presence of moulds.

COMPOSITION

Ingredients	Gms / Ltr
Peptone	5.000
Dextrose (Glucose)	10.000
Potassium dihydrogen phosphate	1.000
Magnesium sulphate	0.500
Dichloran	0.002
Rose Bengal	0.025
Agar	15.000

PRINCIPLE

The medium consists of Peptone which provides nitrogen, vitamins and minerals. Dextrose is a carbohydrate source. Phosphate buffers the medium. Magnesium sulfate provides divalent cations and sulfate. Dichloran is an antifungal agent, added to the medium to reduce colony diameters of spreading fungi. Rose bengal exhibits an improved inhibitory activity at pH 5.6 and therefore the final pH of the medium is reduced to 5.6 for the inhibition of 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 moulds. The concentration of rose bengal is reduced for optimal performance with dichloran. Additionally, rose bengal is taken up by yeast and mold colonies, which allows these colonies to be easily recognized and enumerated.

INSTRUCTION FOR USE

- Dissolve 15.76 grams in 500 ml purified/distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 45-50°C and aseptically add sterile reconstituted contents of 1 vial of Chloramphenicol Selective Supplement.
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

- Appearance of Powder** : Light yellow to pink homogeneous free flowing powder.
Appearance of prepared medium : Pink coloured, clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 5.6 ± 0.2

INTERPRETATION



Cultural characteristics observed with added Chloramphenicol Selective Supplement after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
<i>Bacillus subtilis subsp spizizeni</i>	6633	$\geq 10^4$	Inhibited	0%	25-30°C	Upto 6 Days
<i>Candida albicans</i>	10231	10-100	Good-luxuriant	$\geq 50\%$	25-30°C	Upto 6 Days
<i>Escherichia coli</i>	25922	$\geq 10^3$	Inhibited	0%	25-30°C	Upto 6 Days
<i>Mucor racemosus</i>	42647	10-100	Good-luxuriant	-	25-30°C	Upto 6 Days
<i>Saccharomyces cerevisiae</i>	9763	10-100	Good-luxuriant	$\geq 50\%$	25-30°C	Upto 6 Days

PACKAGING:

In pack size of 100 gm and 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.










DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

- 1 Jarvis B., 1973, J. Appl. Bact., 36:723.
2. King D.A. Jr., Hocking A.D. and Pitt J.I., 1979, J. Appl. Environ. Microbiol., 37:959.
3. Sharf J.M. (Ed.), 1966, American Public Health Association, 2nd ed., New York.
4. Sharp A.N. and Jackson A.K., 1972, J. Appl. Bact., 24:175.



 GMP Good Manufacturing Practices Certified	 Best Before	 Quantity	 Cataloge Number	 Manufacturer
 Temprature Unit	 Lot / Batch Number	 Consults Instructions for Use	 QR Code	

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.
*For Lab Use Only
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