

TM 2306 – ROSE BENGAL AGAR W/ CHLORTETRACYCLINE

INTENDED USE

For the selective isolation and enumeration of yeasts and moulds.

PRODUCT SUMMARY AND EXPLANATION

Rose Bengal Agar Base is a modification of the Rose Bengal Chlortetracycline Agar formula of Jarvis. Of the antibiotics most frequently employed in media of neutral pH, Chloramphenicol is recommended because of its heat stability and broad antibacterial spectrum. Rose Bengal Agar media are recommended in standard methods for the enumeration of yeasts and molds from food stuffs and water.

The use of media with an acid pH that selectively inhibits the growth of bacteria and thereby promotes the growth of fungi has been widely employed. A number of investigators have reported, however, that acidified media may actually inhibit fungal growth, fail to completely inhibit bacterial growth and have little effect in restricting the size of mould colonies. Smith and Dawson used rose bengal in a neutral pH medium for the selective isolation of fungi from soil samples. Chloramphenicol, streptomycin, oxytetracycline and chlortetracycline have been used for the improved, selective isolation and enumeration of yeasts and molds from soil, sewage and foodstuffs.

COMPOSITION

Ingredients	Gms / Ltr
Peptone, special	5.000
Dextrose	10.000
Monopotassium phosphate	1.000
Magnesium sulphate	0.500
Rose bengal	0.050
Agar	15.000

PRINCIPLE

The medium consists of Peptone special which provides the carbon and nitrogen sources required for good growth of a wide variety of organisms. Dextrose is an energy source. Monopotassium phosphate provides buffering capability. Magnesium sulfate provides necessary trace elements. Rose bengal is included as a selective agent that inhibits bacterial growth and restricts the size and height of colonies of the more rapidly growing molds.

The restriction in growth of moulds aids in the isolation of slow-growing fungi by preventing overgrowth by more rapidly growing species. Rose bengal is taken up by yeast and mold colonies, thereby facilitating their recognition and enumeration. Chlortetracycline Selective Supplement is an antimicrobial supplement containing Chlortetracycline, which inhibits bacteria.

INSTRUCTION FOR USE

- Dissolve 31.55 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 40-45°C and aseptically add the rehydrated contents of 1 vial of Chlortetracycline Selective Supplement to the medium.
- Mix thoroughly and pour into sterile Petri plates.



QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Light yellow to pink homogeneous free flowing powder.
Appearance of prepared medium : Deep pink coloured clear to very slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 7.2 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation with added Chlortetracycline Selective Supplement.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
<i>Aspergillus niger</i>	16404	10-100	Good-luxuriant	≥50%	25°C	5 Days
<i>Bacillus subtilis</i>	6633	≥10 ³	Inhibited	0%	25°C	5 Days
<i>Cladosporium cladosporioides</i>	45534	10-100	Good-luxuriant	≥50%	25°C	5 Days
<i>Escherichia coli</i>	25922	≥10 ³	Inhibited	0%	25°C	5 Days
<i>Enterococcus faecalis</i>	29212	≥10 ³	Inhibited	0%	25°C	5 Days
<i>Mucor racemosus</i>	42647	10-100	Good-luxuriant	≥50%	25°C	5 Days
<i>Pencillium notatum</i>	10108	10-100	Good-luxuriant	≥50%	25°C	5 Days
<i>Saccharomyces cerevisiae</i>	9763	10-100	Good-luxuriant	≥50%	25°C	5 Days

PACKAGING:

In pack size of 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. Koburger. 1976. In Speck (ed.), Compendium of methods for the microbiological examination of foods. American Public Health Association, Washington, D.C.
2. Mossel, Visser and Mengerink. 1962. Lab Practice 11:109.
3. Waksman. 1922. J. Bacteriol. 7:339.
4. Koburger. 1972. J. Milk Food Technol. 35:659.
5. Martin. 1950. Soil Sci. 69:215.
6. Tyner. 1944. Soil Sci. 57:271.
7. Smith and Dawson. 1944. Soil Sci. 58:467.
8. Cooke. 1954. Antibiot. and Chemother. 4:657.
9. Marshall (ed.). 1993. Standard methods for the examination of dairy products, 16th ed. American Public Health Association, Washington, D.C.
10. Beuchat and Cousin. 2001. In Downes and Ito (ed.), Compendium of methods for the microbiological examination of foods, 4th ed. American Public Health Association, Washington, D.C.
11. Clesceri, Greenberg and Eaton (ed.). 1998. Standard methods for the examination of water and wastewater, 20th ed. American Public Health Association, Washington, D.C. 14. Banks, Board and Paton. 1985. Lett. Appl. Microbiol. 1:7.

 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**
Revision: 08 Nov., 2019