

## TM 276 – ROSE BENGAL AGAR BASE

### INTENDED USE

For selective isolation and enumeration of yeasts and molds from environmental materials and foods.

### PRODUCT SUMMARY AND EXPLANATION

Rose Bengal Agar is a selective medium to detect and enumerate yeasts and moulds in food samples. The use of media with an acidic pH that selectively inhibits the growth of bacteria and thereby promotes the growth of fungi has been widely employed. Neutral pH media with antibiotics is advantageous for fungal growth compared to acidified media as the later may inhibit fungal growth or fail to inhibit bacterial growth and may restrict 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 moulds from soil, sewage and foodstuffs. Rose Bengal Agar is recommended in standard methods for the enumeration of yeasts and moulds from foodstuffs and water.

### COMPOSITION

Ingredients	Gms / Ltr
Papaic digest of soyabean meal	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 Papaic digest of soyabean meal 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 sulphate provides necessary trace elements. Rose bengal is a selective agent that inhibits bacterial growth and restricts the size and height of colonies of the more rapidly growing moulds. Rose bengal is taken up by yeast and mould colonies, thereby facilitating their recognition and enumeration. Chloramphenicol Selective Supplement inhibit bacteria.

### INSTRUCTION FOR USE

- Dissolve 31.55 grams in 1000 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 40-45°C and add 2 ml of rehydrated Chloramphenicol Selective Supplement for each 500 ml of 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 Chloramphenicol Selective Supplement.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
<i>Aspergillus niger</i>	16404	10-100	Good	40-50%	20-25°C	5 Days
<i>Candida albicans</i>	10231	10-100	Good	40-50%	20-25°C	5 Days
<i>Escherichia coli</i>	25922	$\geq 10^3$	Inhibited	0%	20-25°C	5 Days
<i>Micrococcus luteus</i>	10240	$\geq 10^3$	Inhibited	0%	20-25°C	5 Days
<i>Saccharomyces cerevisiae</i>	9763	10-100	Good	40-50%	20-25°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. Mossel D. A. A., Visser M. and Mengerink W. H. J., 1962, Lab Practice 11:109.
2. Cooke W. B., 1954, Antibiot. and Chemother., 4:657.
3. Jarvis B., 1973, J. Appl. Bacteriol., 36:723.



4. Koburger J. A., 1976, In Speck M. L., (Ed.), Compendium of Methods for the Microbiological Examination of Foods, American Public Health Association, Washington, D.C.
5. Koburger J. A., 1972, J. Milk Food Technol. 35:659.
6. Martin J. P., 1950, Soil Sci. 69:215.
7. Tyner L. E., 1944, Soil Sci. 57:271.
8. Waksman S. A., 1922, J. Bacteriol., 7:339.

 GMP Good Manufacturing Practices Certified	 Best Before	 QTY. Quantity	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 LOT/ B. NO. 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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