

# ROSE BENGAL AGAR

## INTENDED USE

Remel Rose Bengal Agar with chloramphenicol is recommended for use in qualitative procedures for selective cultivation, isolation, and enumeration of yeast and molds from environmental specimens and food.

## SUMMARY AND EXPLANATION

Smith and Dawson added rose bengal to a medium with a neutral pH to selectively isolate fungi from soil samples.<sup>1</sup> Rose Bengal Agar with chloramphenicol is based on the formula developed by Jarvis for enumeration of yeasts and molds from food and water.<sup>2,3</sup> Chloramphenicol is added as a selective agent because of its heat stability and wide spectrum antibacterial activity.

## PROCEDURE

Dextrose is the fermentable carbohydrate and a ready source of energy. Soy peptone supplies nitrogen and vitamin sources required for the growth of fungi. Monopotassium phosphate is a buffer. Magnesium sulfate provides sulfur and other trace elements. Chloramphenicol is a selective agent which inhibits bacterial growth. Rose bengal is a selective agent that inhibits the growth of bacteria and limits the size of faster-growing molds, allowing for the development and detection of slower-growing yeasts. Rose bengal dye is absorbed by the cells of yeasts and molds, turning these colonies pink.

## REAGENTS (CLASSICAL FORMULA)\*

Dextrose.....	10.0 g	Chloramphenicol.....	0.1 g
Soy Peptone.....	5.0 g	Rose Bengal.....	0.05 g
Monopotassium Phosphate.....	1.0 g	Agar.....	15.0 g
Magnesium Sulfate.....	0.5 g	Demineralized Water.....	1000.0 ml

pH 7.2 ± 0.2 @ 25°C

\*Adjusted as required to meet performance standards.

## PRECAUTIONS

This product is For Laboratory Use only. It is not intended for use in the diagnosis of disease or other conditions.

## PROCEDURE

1. Consult current editions of appropriate references for the recommended procedure for sample preparation, inoculation, testing, and interpretation.

## QUALITY CONTROL

Each lot number of Rose Bengal Agar has been manufactured, packaged, and processed in accordance with current Good Manufacturing Practice regulations. All lot numbers have been tested using the following quality control organisms and have been found to be acceptable. Testing of control organisms should be performed in accordance with established laboratory quality control procedures. If aberrant quality control results are noted, sample results should not be reported.

## CONTROL

*Candida albicans* ATCC® 10231  
*Trichophyton mentagrophytes* ATCC® 9533  
*Escherichia coli* ATCC® 25922

## INCUBATION

Ambient, up to 72 h @ 25-30°C  
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Ambient, up to 72 h @ 25-30°C

## RESULTS

Good growth, pink colonies  
Good growth  
No growth

## BIBLIOGRAPHY

1. Smith, N.R. and V.T. Dawson. 1944. Soil Sci. 58:467-471.
2. MacFaddin, J.F. 1985. Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria. Vol.1. Williams & Wilkins, Baltimore, MD.
3. Jarvis, B. 1973. J. Appl. Bacteriol. 36:723-727.
4. Wehr, H.M. and J.F. Frank. 2004. Standard Methods for the Examination of Dairy Products. 17<sup>th</sup> ed. APHA, Washington, D.C.
5. Eaton, A.D., L.S. Clesceri, E.W. Rice, and A.E. Greenberg. 2005. Standard Methods for the Examination of Water & Wastewater. 21<sup>st</sup> ed. APHA, Washington, D.C.
6. Downes, F.P. and K. Ito. 2001. Compendium of Methods for the Microbiological Examination of Foods. 4<sup>th</sup> ed. APHA, Washington, D.C.

## LIMITATIONS

1. Store Rose Bengal Agar in the dark; exposure to light may result in photodegradation which can result in compounds toxic to fungi.<sup>2</sup>
2. Some strains of fungi may be inhibited on Rose Bengal Agar.<sup>2</sup>

Refer to the front of Remel *Technical Manual of Microbiological Media* for **General Information** regarding precautions, product storage and deterioration, sample collection, storage and transportation, materials required, quality control, and limitations.

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