

Rose Bengal Chloramphenicol Agar Plate (Gamma-Irradiated)

Intended Use

Rose Bengal Chloramphenicol Agar is used for selective isolation and enumeration of Yeasts and Moulds from food and environmental materials.

Summary

Rose Bengal Chloramphenicol Agar was formulated originally by Jarvis and further modified by Overcast and Weakley. The use of Rose Bengal in the media having neutral pH was reported by Smith and Dawson.

Principle

Mycological peptone provides essential growth nutrients. Dextrose is the fermentable carbohydrate. Chloramphenicol has inhibitory action on Gram-negative bacteria. Rose Bengal dye suppresses the development of bacteria and reduces the spreading of moulds, controls the size and height of mould colonies such as *Rhizopus* species. The medium has neutral pH, which with the antibiotics is noted to be advantageous. Rose Bengal is taken up by mould and yeast colonies thereby assist in enumeration.

Formula*

| Ingredients | g/L |
|-------------------------|-----------|
| Mycological Peptone | 5.0 |
| Dextrose | 10.0 |
| Monopotassium Phosphate | 1.0 |
| Magnesium Sulphate | 0.5 |
| Rose Bengal | 0.05 |
| Chloramphenicol | 0.1 |
| Agar | 15.5 |
| Final pH (at 25°C) | 7.2 ± 0.2 |

*Adjusted to suit performance parameters.

Additional Material Required

Bacteriology Incubator.

Instructions for use

1. Open the sterile pack and remove the respective plate aseptically.
2. Inoculate/streak the plate as per standard procedure.
3. Incubate the plates in inverted position as per standard guidelines.

Reading and interpretation

1. After incubation, observe the microbial growth and count the colonies.
2. Interpretation is assured by user.
3. User is responsible to define the action limits as per standard guidelines and alert limits on the basis of trend analysis & other relevant data.

Quality Control

Appearance: Gel with smooth and even surface, without any cracks, bubbles and drying or shrinking of media.

Colour of Medium: Deep pink coloured medium.

Quantity of Medium: 29 ± 2 g in 90 mm petriplate.

pH at 25°C ± 2°C: 7.2 ± 0.2

Growth Promotion Test: Growth promotion is carried out in accordance with the harmonized method of USP/EP/JP/IP and growth is observed after 30°C-35°C for 48 hours for bacteria and at 20°C-25°C for ≤ 5 days for fungi.

Growth Promoting Properties: The test results observed are within the specified temperature and shortest period of time, inoculating ≤ 100 cfu of appropriate microorganism.

Indicative Properties: The test results observed are within the specified temperature and time, inoculating ≤ 100 cfu of appropriate microorganism.

Inhibitory Properties: No growth of the test microorganism occurs for the specified temperature and not less than the longest period of the time specified, inoculating greater than 100 cfu of the appropriate microorganism.

Cultural Response:

| Organism (ATCC) | Growth | Incubation Temperature | Incubation Period |
|--|-----------|------------------------|-------------------|
| <i>Aspergillus brasiliensis</i> WLRI 034(120) (16404) | Good | 20°C-25°C | 72 Hours |
| <i>Penicillium chrysogenum</i> (10108) | Good | 20°C-25°C | 72 Hours |
| <i>Candida albicans</i> 3147 (10231) | Good | 20°C-25°C | 48 Hours |
| <i>Saccharomyces cerevisiae</i> NRRL Y-567 (9763) | Good | 20°C-25°C | 48 Hours |
| <i>Mucor racemosus</i> (42647) | Good | 20°C-25°C | 72 Hours |
| <i>Escherichia coli</i> (8739) | Inhibited | 30°C-35°C | 48 Hours |
| <i>Enterococcus faecalis</i> (29212) | Inhibited | 30°C-35°C | 48 Hours |
| <i>Bacillus spizizenii</i> (6633) | Inhibited | 30°C-35°C | 48 Hours |

Note:

For Good growth - growth obtained on test media should not differ by a factor greater than 2 from calculated value for a standardized inoculum.

Storage and Shelf Life

1. Store between 15°C-25°C to avoid water condensation. Condensation can be prevented by avoiding quick temperature shifts and mechanical stress.
2. Under optimal conditions, the medium has a shelf life of 6 months. Use before expiry mentioned on the label.

Reference

1. Jarvis B., 1973, J. Appl. Bacteriol., 36:723.
2. Overcast W.W. and Weakley D.J., 1969, J. Milk Food Technol., 32:442.
3. Smith and Dawson V. T., 1944, Soil Sci., 58:467.
4. Ottow J.C.G. and Glathe H., 1968, Appl. Microbiol., 16(1):170.
5. Koburger J.A., 1968, Bact. Proc., 13: A73.
6. MacFaddin J.F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.
7. Beuchat L. R. and Cousin M. A., 2001, In Downes F. P. and Ito K., (Eds.), Compendium of Methods for the Microbiological Examination of Foods, 4th Ed., American Public Health Association, Washington, D.C.
8. Banks J. G., Board R. G., and Paton J., 1985, Lett. Appl. Microbiol., 1:7.
9. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

| Cat No. | Product | Pack Size |
|--------------|--|------------|
| 205180430100 | Rose Bengal Chloramphenicol Agar Plate | 100 Plates |

Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.
