Rose Bengal Chloramphenicol Agar

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	15.0
Final pH (at 25°C)	7.2 ± 0.2

*Adjusted to suit performance parameters.

Storage and Stability
Store below 8°C in tightly closed container, preferably in desiccators and use freshly prepared medium. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

Type of Specimen
Food and Dairy samples; Soil and Water samples.

Specimen Collection and Handling
Ensure that all samples are properly labelled. Follow appropriate techniques for handling samples as per established guidelines. Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure. The samples must be stored and tested within the permissible time duration. After use, contaminated materials must be sterilized by autoclaving before discarding.

Directions
1. Suspend 32.15 g of the powder in 1000 mL purified / distilled water.
2. Mix thoroughly.
3. Boil with frequent agitation to dissolve the powder completely. DO NOT OVERHEAT.
4. Sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.
5. Mix thoroughly and pour into sterile petridishes.

Quality Control

Dehydrated Appearance: Pink coloured, homogenous, free flowing powder.
Prepared Appearance: Deep pink coloured, clear to very slightly opalescent gel forms in petridishes.
Growth Promotion Test: Growth promotion is carried out in accordance with 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 specified in the test, inoculating ≤ 100 cfu of appropriate microorganism at 20°C-25°C for <= 5 days.
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 > 100 cfu of the appropriate microorganism at 30°C-35°C for >=48 hours.

Organism (ATCC)	**Growth**
Aspergillus brasiliensis WLRI 034(120) (16404)	Good
Candida albicans 3147 (10231)	Good
Pencillium chrysogenum (10108)	Good
Saccharomyces cerevisiae NRRL Y-567 (9763)	Good
Mucor racemosus (42647)	Good
Enterococcus faecalis (29212)	Inhibited
Escherichia coli (8739)	Inhibited
Bacillus spizizenii (6633)	Inhibited

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. For inhibition no growth of test microorganism should occur.

Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

Precautions / Limitations

1. Due to the selective properties of this medium and the Type of Specimen being cultured, some strains of fungi may grow poorly or fail to grow on the complete medium; similarly, some strains of bacteria may also not be inhibited or only partially inhibited.
2. Care should be taken not to expose this medium to light, since photodegradation of Rose Bengal yields compounds that are toxic to fungi.

Warranty

This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

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 description	Pack Size
201180140100	Dehydrated Culture Media	100 g
201180140500	Dehydrated Culture Media	500 g