

Rose Bengal Chloramphenicol Agar

Recommended for selective isolation and enumeration of yeasts and moulds from foods and environmental materials.

REF: BS.1/RC01.100.0100
REF: BS.1/RC01.500.0500

100 Gram
500 Gram

REF: BS.1/RC01.250.0250

250 Gram

CLINICAL SIGNIFICANCE

Rose Bengal Chloramphenicol Agar was formulated originally by Jarvis (1) and further modified by Overcast and Weakley (2). The use of rose bengal in the media having neutral pH was reported by Smith and Dawson (3).

METHOD PRINCIPLE

Mycological peptone provides carbon, nitrogen substances, long chain amino acids, vitamins and other essential growth nutrients. Dextrose (Glucose) 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 (4). The medium has neutral pH, which with the antibiotics has noted to be advantageous (5, 6). Rose bengal is taken up by mould and yeast colonies thereby assist in enumeration (1). The number of yeasts or moulds is calculated per 1 gram or 1 ml of sample to be tested by multiplying the number of colonies by dilution factor. Colonies of bacteria and yeasts could be confused by appearance and thus should be examined microscopically. 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. Care should be taken not to expose this medium to light, since photodegradation of rose bengal yields compounds that are toxic to fungi (7, 8).

MEDIA COMPOSITION

Item	Formula per liter of medium
- Mycological peptone	5.000 gm.
- Dextrose (Glucose)	10.00 gm.
- Potassium dihydrogen phosphate	1.000 gm.
- Magnesium sulphate	0.500 gm.
- Rose Bengal	0.050 gm.
- Chloramphenicol	0.100 gm.
- Agar	15.50 gm.

Final pH 7.2 ± 0.2 at 25°C

PRECAUTIONS AND WARNINGS

Media to be handled by entitled and professionally educated person. Do not ingest or inhale.

Good Laboratories practices using appropriate precautions should be followed in:

- Wearing personnel protective equipment (overall, gloves, glasses,).
- Do not pipette by mouth.
- In case of contact with eyes or skin; rinse immediately with plenty of soap and water. In case of severe injuries; seek medical advice immediately.

- Respect country requirement for waste disposal.

S56: dispose of this material and its container at hazardous or special waste collection point.

S57: use appropriate container to avoid environmental contamination.

S61: avoid release in environment.

For further information, refer to the Rose Bengal Chloramphenicol Agar Material safety datasheet.

EQUIPMENT REQUIRED NOT PROVIDED

- Sterile plates
- Incubator
- Autoclave

STORAGE AND STABILITY

BioScien Rose Bengal Chloramphenicol Agar should be stored between 10-30°C in a firmly closed container and the prepared medium at 2-8°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to avoid lump development due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in a dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use. Product performance is best if used within stated expiry period.

PREPARATION

1. Suspend 32.15 grams in 1000 ml purified/distilled water.
2. Adjust pH to 7.2 ± 0.2 at 25°C
3. Heat to boiling to dissolve the medium completely.
4. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.
5. Cool to 45-50°C. Mix well and pour into sterile Petri plates.

Deterioration

The color of **BioScien** Rose Bengal Chloramphenicol Agar is Light yellow to pink homogeneous free flowing powder. Prepared Medium is deep pink coloured clear to slightly opalescent gel forms in Petri plates. If there are any physical changes for powder or signs of deterioration (shrinking, cracking, or discoloration), and contaminations for hydrated media, discard the medium.

SPECIMEN

Food samples; Environmental samples

QUALITY CONTROL

To ensure adequate quality control, it is recommended that positive and negative control included in each run. If control values are found outside the defined range, check the system performance. If control still out of range please contact **BioScien** technical support.

PERFORMANCE CHARACTERISTICS

Oranism	Growth
<i>Aspergillus brasiliensis</i> ATCC 16404	Good - luxuriant
<i>Bacillus subtilis</i> subsp. <i>spizizenii</i> ATCC 6633	Inhibited
<i>Cladosporium cladosporioides</i> ATCC 11278	Good - luxuriant
<i>Escherichia coli</i> ATCC 25922	Inhibited
<i>Enterococcus faecalis</i> ATCC 29212	Inhibited
<i>Mucor racemosus</i> ATCC 42647	Good - luxuriant
<i>Pencillium notatum</i> ATCC 10108	Good - luxuriant
<i>Saccharomyces cerevisiae</i> ATCC 9763	Good - luxuriant

REFERENCES

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SYMBOLS IN PRODUCT LABELLING			
	For in-vitro diagnostic use		Number of <n> test in the pack
	Batch Code/Lot number		Caution
	Catalogue Number		Do not use if package is damaged
	Temperature Limitation		Consult Instruction for use
	Expiration Date		
	Manufactured by		