

Rose Bengal Chloramphenicol Agar (NCM0135)

Intended Use

Rose Bengal Chloramphenicol Agar is used for the selective isolation and enumeration of yeasts and molds from foods. Rose Bengal Chloramphenicol Agar is not intended for use in the diagnosis of disease or other conditions in humans.

Description

Rose Bengal Chloramphenicol Agar Base is a selective medium for the enumeration of fungi. In 1944, Smith and Dawson used Rose Bengal for the selective isolation of fungi from soil samples. This formula was prepared with a neutral pH, deviating from the usual acidified medium. Several investigations have found a neutral pH with the addition of a selective agent have been successful in supporting fungal growth and restricting bacterial growth. Rose Bengal Agar pre-supplemented with Chloramphenicol is a modification of the Rose Bengal Chlortetracycline Agar formula of Jarvis. Chloramphenicol is recommended as the selective agent in fungal medium with a neutral pH because of its heat stability and broad antibacterial spectrum.

Rose Bengal Chloramphenicol Agar is recommended in standard methods for the enumeration of yeast and molds from foods and water. Rose Bengal Chloramphenicol Agar is also referred to as Rose Bengal Agar and Rose Bengal-Malt Extract Agar.

Formula / Liter

Enzymatic Digest of Soybean Meal	5.0 g/L
Dextrose	10.0 g/L
Monopotassium Phosphate	1.0 g/L
Magnesium Sulfate	0.5 g/L
Rose Bengal	0.05 g/L
Chloramphenicol	0.1 g/L
Agar	15.5 g/L

Final pH: 7.2 ± 0.2 at 25°C

Formula may be adjusted and/or supplemented as required to meet performance specifications.

Precaution

Refer to SDS

Preparation

1. Dissolve 32.2 grams of the medium in one liter of purified water.
2. Heat with frequent agitation and boil for one minute to completely dissolve the medium.
3. Autoclave at 121°C for 15 minutes.
4. Cool to 45-50°C.

Test Procedure

Consult appropriate references for recommended test procedures on the isolation and identification of yeasts and molds.

Quality Control Specifications

Dehydrated Appearance: Powder is homogeneous, free flowing, and pink.

Prepared Appearance: Prepared medium is trace to slightly hazy and bright pink.



Technical Specification Sheet



Expected Cultural Response: Cultural response on Rose Bengal Chloramphenicol Agar was incubated aerobically at 25 - 30°C and examined for growth at 2 – 5 days.

Microorganism	Approx. Inoculum (CFU)	Expected Results
<i>Aspergillus brasiliensis</i> ATCC® 16404	Point inoculation	Growth; reduced colony diameter
<i>Escherichia coli</i> ATCC® 25922	>10 ⁵	Inhibited
<i>Enterococcus faecalis</i> ATCC® 29212	>10 ⁵	Inhibited
<i>Mucor racemosus</i> ATCC® 42647	Point inoculation	Growth
<i>Penicillium roquefortii</i> ATCC® 10110	Point inoculation	Growth; reduced colony diameter
<i>Saccharomyces cerevisiae</i> ATCC® 9763	4 Quad Streak	Growth; may have reduced recovery
<i>Candida albicans</i> ATCC® 10231	4 Quad Streak	Growth; may have reduced recovery
<i>Rhizopus spp.</i>	Point inoculation	Growth; reduced colony diameter

The organisms listed are the minimum that should be used for quality control testing.

Results

Colonies of yeast appear pink. Molds will grow as filamentous colonies, with various shades of pink on the reverse. Refer to appropriate references for a complete discussion on yeast and molds.

Expiration

Refer to expiration date stamped on the container. The dehydrated medium should be discarded if not free flowing, or if the appearance has changed from the original color. Expiry applies to medium in its intact container when stored as directed.

Limitations of the Procedure

1. Some strains may be encountered that grow poorly or fail to grow on this medium.
2. Antimicrobial agents added to medium inhibit bacteria may also inhibit certain pathogenic fungi.
3. Exposure to light on Rose Bengal Chloramphenicol Agar should be avoided. Photodegradation of Rose Bengal can produce compounds that are toxic to fungi.

Storage

Store dehydrated culture media at 2 – 30°C away from direct sunlight. Once opened and recapped, place the container in a low humidity environment at the same storage temperature. Protect from moisture and light by keeping container tightly closed.

References

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