

PRODUCT CODE: 414855

Rose Bengal Chloramphenicol Agar (Dehydrated Culture Media) for microbiology

Preparation

Dissolve 32 g in 1 l of purified water and bring to the boil with frequent stirring. Distribute into final containers and sterilise by autoclaving at 121°C for 15 minutes. After making a dilution bank, take 0.1 ml from each dilution and inoculate on Rose Bengal agar plates with a Drigalsky.

Loop or glass spreader. Should the pour plate method be preferred, take 1 ml from each dilution and put it in an empty Petri dish. Pour the molten medium at 50°C and homogenize it by gently swirling the plate in the shape of a figure 8. Incubate at 22°C for 5 days enumerate the fungi.

After making a dilution bank, take 0.1 ml from each dilution and inoculate with a Drigalsky Loop or glass spreader on Rose Bengal agar plates. Should the massive seed method be preferred, take 1 ml from each dilution and put it in an empty plate. Pour the molten medium at 50°C and homogenize it by gently moving the plate in an eight (8) shape. Incubate at 22-25°C for 5 days and proceed to enumerate the fungi.

Limitations:

- The low concentration of antibiotic that contains the culture medium can be expected that the growth of certain strains of bacteria is inhibited only partially.
- This medium is photo-sensible. Do not expose this medium to the light since photo-degradation of Rose Bengal produce compounds toxic to fungi.
- The prepared medium or ready-to-use plates haven a short shelf life and retain these at $4 \pm 2^{\circ}\text{C}$ in the dark.

Uses

ROSE BENGAL AGAR + CHLORAMPHENICOL is a neutral selective medium recommended for the enumeration of molds and yeasts in foods, water and environmental materials. Rose-Bengal Chloramphenicol Agar is recommended for fresh proteinaceous foods with flora mostly made up of Gram-negative rod-shaped bacteria.

It is also appropriate when higher and longer incubation temperatures, around 35°C, are required. Bacteriological peptone provides the nitrogen, vitamins, minerals and amino acids source. Dextrose is the fermentable carbohydrate as a carbon and energy source. Potassium phosphate is the buffer. Magnesium sulfate provides sulfur and other trace elements. Rose bengal is a selective agent that inhibits the growth of bacteria and limits the size and height of faster-growing molds, allowing for the development and detection of other slower-growing yeasts - molds appear pink colored. Chloramphenicol serves as a selective agent, inhibiting bacterial growth. It is a recommended antibiotic for neutral media due to its heat stability and wide bacterial spectrum. Bacteriological agar is the solidifying agent.

The inoculation can be carried out from a diluted source, either by the extension of 0.1 ml of each dilution into the prepared plates, or by the pouring method, depositing 1 ml of each dilution into the empty plate, pouring the medium immediately after (once it has been cooled to 45°C). Incubate for 7 days at 25-30°C.

Composition

See in Data Sheet (TDS).

Microbiological Test

Incubation temperature: 25 ± 1°C Incubation time: 48 h- 5 Days

Inoculum: Practical range 100±20 CFU. Min. 50 CFU (Productivity) / 104-106 CFU (Selectivity) according to ISO 11133:2014

Microorganism	Growth	Remarks
<i>Bacillus subtilis</i> ATCC® 6633	Total inhibition	-
<i>Escherichia coli</i> ATCC® 8739	Total inhibition	-
<i>Aspergillus brasiliensis</i> ATCC® 16404	Productivity > 0.50	Black sporulation (5 days)
<i>Saccharomyces cerevisiae</i> ATCC® 9763	Productivity > 0.50	
<i>Candida albicans</i> ATCC® 10231	Productivity > 0.50	

Storage

For laboratory use only. Keep tightly closed, away from bright light, in a cool dry place (+4 °C to 30 °C).

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