ROSE BENGAL AGAR WITH CHLORAMPHENICOL

RBCA-0HI-500

- **Principle**

Rose Bengal Chloramphenicol Agar is a selective medium used for the isolation and enumeration of yeasts and moulds. It is formulated with mycological peptone, dextrose, potassium dihydrogen phosphate, magnesium sulphate, rose bengal, chloramphenicol and agar. Mycological peptone provides carbon, nitrogen, amino acids, vitamins and other essential nutrients required for fungal growth. Dextrose serves as an energy source, supporting rapid development of fungal colonies. Potassium dihydrogen phosphate acts as a buffering agent to stabilise the pH, while magnesium sulphate supplies ions required for enzymatic and metabolic reactions.

Rose bengal functions as a selective and restrictive agent. It inhibits bacterial growth to some extent, limits the spreading of moulds and prevents excessive growth of rapidly growing species, thereby improving the recovery of slower-growing fungi. It also controls the size and height of colonies, particularly for spreading moulds such as Rhizopus species. The dye is absorbed by yeasts and moulds, enhancing colony visibility and facilitating enumeration. Chloramphenicol is included as an antibiotic to suppress bacterial contaminants, particularly Gram-negative organisms. Agar is included as the solidifying agent.

- **Regulatory compliance**

This product is manufactured under a quality management system in accordance with ISO 9001 and ISO 13485, and its formulation and quality control comply with applicable international standards, such as ISO 11133, where relevant.

- **Composition**

Ingredients	**g/L**
Mycological peptone	5
Dextrose	10
Potassium dihydrogen phosphate	1
Magnesium sulphate	0.5
Rose bengal	0.05
Chloramphenicol	0.1
Agar	15

- **Preparation**

Dissolve 32 grams in 1,000 ml distilled water. Boil to dissolve the medium completely and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 min, cool it to 42-45 °C and distribute aseptically in petri plates. Ensure complete solidification and inoculate test sample aseptically.

- **Applications and use**

Recommended for the selective isolation and enumeration of yeasts and moulds in food, dairy and agricultural products, as well as in environmental samples. It is particularly suitable for routine fungal counts when bacterial background flora is expected, and when control of spreading moulds is required to improve colony recognition and accurate enumeration.

- **Quality control**

Solubility	w/o rests
Appearance	Fine powder
Colour of the dehydrated medium	Pinkish beige
Colour of the prepared medium	Pink
Final pH (25 °C)	7.2 ± 0.2

- **Microbiological test**

Cultural characteristics observed after incubation at 25-30 °C for 3-7 days. Inoculum 50-100 CFU.

Microorganism	ATCC	Inoculum (CFU)	Growth	Recovery
Candida albicans	10231	50-100	Luxuriant	≥ 60%
Saccharomyces cerevisiae	9763	50-100	Luxuriant	≥ 60%
Aspergillus brasiliensis	16404	50-100	Luxuriant	≥ 60%
Escherichia coli	8739	50-100	Inhibited	-
Bacillus subtilis	6633	50-100	Inhibited	-

- **Storage**

The product is highly hygroscopic; keep the container always closed and store it properly as per the conditions mentioned on the label. The declared expiry is valid only when stored as per the conditions mentioned on the label. Temp. Min.:2 °C Temp. Max.:25 °C.

Note: Sterilize media immediately after reconstitution.

- **Bibliography**

Atlas, R. M. (2005). Handbook of media for environmental microbiology. CRC press.

Difco Manual (1998). 11th Edition. Difco Laboratories., Division of Becton Dickinson and Company, Sparks, Maryland, USA.

Murray P. R., Baron J. H., Pfaller M. A., Jorgensen J. H. and Yolken R. H., (Ed.), 2003, Manual of Clinical Microbiology, 8th Ed., American Society for Microbiology, Washington, D. C.

- **Product use limitation**

This product is developed, designed and supplied exclusively for research use only. It is not intended for diagnostic applications or drug development, and it is not suitable for administration to humans or animals.