

R-2A Agar Plate (90mm)

Recommended for enumerating heterotrophic organisms in treated potable water.

Product Presentation:

Cat No.	Product description	Pack Size
31010100060	R-2A Agar Plates	60 Plates

Principle

Composition

R2A Agar was developed by Reasoner and Geldreich (1979) for bacteriological plate counts of treated potable water. It is a low nutrient medium, in combination with a lower incubation temperature and longer incubation time stimulates the growth of stressed and chlorine-tolerant bacteria. Media is composed of yeast extract, proteose peptone, casamino acids, dextrose, starch, sodium pyruvate, dipotassium phosphate, magnesium sulfate and agar. Yeast extract provides nitrogen, carbon and vitamins. Proteose peptone and casamino acids provide nitrogen, amino acids, carbon and minerals. Dextrose is a source of carbon. Starch absorbs toxic metabolites and help in the recovery of injured organisms. Sodium Pyruvate increases the recovery of stressed cells. Potassium phosphate is the source of phosphate and balance the Ph pH. Magnesium sulfate is a source of sulfate and divalent cations. Agar is the solidifying agent.

Ingredients	Grams / Litre		
Yeast Extract	0.50		
Proteose Peptone	0.50		
Casamino Acids	0.50		
Dextrose	0.50		
Starch	0.50		
Sodium Pyruvate	0.30		
Dipotassium Phosphate	0.30		
Magnesium Sulphate	0.05		
Agar	15.00		

*Formula adjusted, standardized to suit performance parameters

Additional Material Required

Bacteriology Incubator.

Directions

- ✓ Open the sterile pack and remove R-2A Agar Plate aseptically.
- ✓ Inoculate/streak the plate and Incubate in inverted position as per standard procedure.

FACTORY & OFFICE

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Storage and Stability

- ✓ Store between 15°C-25°C to avoid water condensation. Condensation can be prevented by avoiding quick temperature shifts and mechanical stress.
- ✓ Under optimal conditions, the medium has a shelf life of 6 months. Use before expiry mentioned on the label.

Quality Control

Appearance: Gel with smooth, even surface without any cracks, bubbles and drying or shrinking of media.

Colour and Clarity of Medium: Light Amber coloured, slightly opalescent gel forms in petridishes **Quantity of Medium:** 25 ± 2 g media in 90 mm petriplate **pH at 25°C±2°C:** 7.2±0.2

Growth Promoting Properties: The test results observed are within the specified temperature and shortest period of time specified in the test, inoculating \leq 100 cfu of appropriate microorganism.

Cultural Response :

Organism	Type Culture	Growth	Incubation Temperature	Incubation Period
Pseudomonas aeruginosa	ATCC 27853	Good	30°C -35°C	18-24 Hours
Escherichia coli	ATCC 8739	Good	30°C -35°C	18-24 Hours
Candida albicans	ATCC 10231	Good	20°C -25°C	24-72 Hours

<u>Disposal</u>

Disposal of infectious material and material that comes in to contact with clinical sample must be decontaminated and dispose of by autoclaving or incineration or established laboratory procedures.

User must be ensure safe disposal of used or unusable preperation of the products.

<u>Reference</u>

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

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

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