R2A Agar

Catalog : HB0167-8-5K

*R2A Agar is used for the detection of total bacteria in drinking water.*

## Approximate Formula:

| Ingredients | gm/liter |
|---|---|
| Tryptone | 0.25 |
| Acid Hydrolyzed Casein | 0.5 |
| Yeast Extract | 0.5 |
| Soluble Starch | 0.5 |
| Dipotassium Hydrogen Phosphate | 0.3 |
| Magnesium Sulfate | 0.1 |
| Sodium Pyruvate | 0.3 |
| Agar | 12.0 |
| Peptone | 0.25 |
| Glucose | 0.5 |

Final pH7.2±0.2 at 25℃

*Adjusted and/or supplemented as required to meet performance criteria.

## Directions:

Suspend 15.2g of the medium in one liter of deionized or distilled water. Heat to dissolved. Dispense into flasks. Sterilize in an autoclave at 121℃(15 lbs.) for 15 minutes.

## Principle and Interpretation:

Yeast extract provides a source of trace elements and vitamins. Tryptone, peptone and acid hydrolyzed casein provide nitrogen, vitamins, amino acids, carbon and minerals. Dextrose serves as a carbon source. Soluble starch aids in the recovery of injured organisms by absorbing toxic metabolic by-products. Sodium pyruvate increases the recovery of stressed cells. Potassium phosphate is used to balance the pH and provide phosphate. Magnesium sulfate is a source of divalent cations and sulfate. Agar is the solidifying agent.

## Appearance:

Dehydrated medium is a free-flowing yellowish powder. The prepared medium is a kind of milk white transparent gel.

## Precautions:

This medium is for laboratory use only. Dried medium which is caking or color variation cannot be used.

## Storage conditions and Shelf life:

R2A Agar must be stored tightly capped in the original container at 5-30°C.The dehydrated medium has a shelf life of 5 years from date of manufacturing. Prepared medium may be stored, out of direct light at 2-8°C.

## Quality control:

Prepare the medium per label directions. Inoculate and incubate at 30-35℃ for 48±2 hours.

| Microorganism | Strains Number | Inoculum (CFU) | Growth | Recovery | Remarks |
|---|---|---|---|---|---|
| *Pseudomonas aeruginosa* | ATCC 9027 | 20-200 | Luxuriant | ≥70% | Green colonies |
| *Escherichia coli* | ATCC 25922 | 20-200 | Luxuriant | ≥70% | Colorless colonies |
| *Bacillus subtilis* | ATCC 6633 | 20-200 | Luxuriant | ≥70% | White irregular colonies |
| *Staphylococcus Aureus* | ATCC 6538 | 20-200 | Luxuriant | ≥70% | Yellowish colonies |

## Reference:

1. Reasoner and Geldreich. 1985. Appl. Environ. Microbiol. 49:1.

2. Fiksdal, Vik, Mills and Staley. 1982. J. Am. Water Works Assoc. 74:313.



Qingdao Hope Bio-Technology Co ., Ltd ., China Tel:-86+532-66087711 E-mail:qdhbywg@vip.126.com http://www.hopebiol.com