

## Yeast Extract Agar

Catalog : HB0157-500

Yeast Extract Agar is used for the detection of total bacteria in water. This medium is recommended by ISO 6222 for the plate count of microorganisms in all types of water.

### Approximate Formula:

| Ingredients                 | gm/liter |
|-----------------------------|----------|
| Yeast Extract               | 3.0      |
| Pancreatic Digest of Casein | 6.0      |
| Agar                        | 15.0     |
| Final pH7.2±0.2 at 25°C     |          |

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

### Directions:

Suspend 24.0g of the medium in one liter of deionized or distilled water. Heat to dissolved. Sterilize in an autoclave at 121°C for 15 minutes, allow to cool and maintain it at (45±1)°C using the bath, It is recommended to store the medium not longer than 4h at 45°C.

### Principle and Interpretation:

Pancreatic digest of casein provides nitrogen, vitamins, minerals and amino acids essential for growth. Yeast extract is the water-soluble portion of hydrolyzed yeast and is a source of vitamins, particularly of the B-group. Agar is the solidifying agent.

### Appearance:

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

### Precautions:

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

### Storage conditions and Shelf life:

Yeast Extract 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 culture medium as per label directions. Inoculate and incubate at 37°C for 24-48h.

| Microorganism                 | Strains Number | Inoculum (CFU) | Growth    | Recovery | Remarks                  |
|-------------------------------|----------------|----------------|-----------|----------|--------------------------|
| <i>Staphylococcus aureus</i>  | ATCC 6538      | 20-200         | Luxuriant | ≥ 70%    | Yellowish colonies       |
| <i>Escherichia coli</i>       | ATCC 8739      | 20-200         | Luxuriant | ≥ 70%    | Colorless large colonies |
| <i>Pseudomonas aeruginosa</i> | ATCC 9027      | 20-200         | Luxuriant | ≥ 70%    | Green colonies           |
| <i>Bacillus subtilis</i>      | ATCC 6633      | 20-200         | Luxuriant | ≥ 70%    | White irregular colonies |

### Reference:

- ISO 6222 Water Quality. Enumeration of culturable micro-organisms- colony count by inoculation in a nutrient agar culture medium.