# YT Agar

**M1369**

YT Agar is recommended for growth of *Escherichia coli* K12 strains used in preparation of phage and plasmid DNA according to Miller.

## Composition**

| Ingredients | Gms / Litre |
|---|---|
| Casein enzymic hydrolysate | 8.000 |
| Yeast extract | 5.000 |
| Sodium chloride | 5.000 |
| Agar | 10.000 |

**Formula adjusted, standardized to suit performance parameters

## Directions

Suspend 28.00 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

## Principle And Interpretation

YT Agar is used for the growth of *Escherichia coli* K12 strain used in preparation of phase and plasmid DNA according to Miller (1).

Casein enzymic hydrolysate and yeast extract provides sources of nitrogen and growth factors which allow the bacteria to recover from the stress of transformation and grow well. Sodium chloride provide essential ion.

## Quality Control

**Appearance**

Cream to yellow homogeneous free flowing powder

**Gelling**

Firm, comparable with 1.0% Agar gel.

**Colour and Clarity of prepared medium**

Light amber coloured clear to slightly opalescent gel forms in Petri plates.

**Cultural Response**

M1369: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

| Organism | Inoculum (CFU) | Growth | Recovery |
|---|---|---|---|
| **Cultural Response** | | | |
| *Bacillus subtilis ATCC 6633* | 50-100 | luxuriant | >=70% |
| *Enterobacter aerogenes ATCC 13048* | 50-100 | luxuriant | >=70% |
| *Escherichia coli ATCC 25922* | 50-100 | luxuriant | >=70% |
| *Enterococcus faecalis ATCC 29212* | 50-100 | luxuriant | >=70% |
| *Lactobacillus casei ATCC 9595* | 50-100 | luxuriant | >=70% |
| *Pseudomonas aeruginosa ATCC 27853* | 50-100 | luxuriant | >=70% |
| *Staphylococcus aureus ATCC 25923* | 50-100 | luxuriant | >=70% |

## Storage and Shelf Life

Store below 30°C in tightly closed container and use freshly prepared medium. Use before expiry date on the label.

## Reference

1. H. Miller Meth Enzymol; 152 ,145, (1987).

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