

# **Technical Information**

### 2 XYT Growth Medium

### Product Code: G1034

2 XYT Growth Medium is an optimized formulation for the growth and maintenance of M13 phage or other filamentous ss DNA bacteriophages.

Composition\*\*:

Ingredients	Grams/Litre
Tryptone	16.00
Yeast extract	10.00
Sodium Chloride	5.00

<sup>\*\*</sup> Formula adjusted, standardized to suit performance parameters

## Methodology

Suspend 31 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Dispense as desired and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

## Principle and Interpretation

2 XYT Growth Medium is an optimized formulation for the growth and maintenance of M13 phage or other filamentous ss DNA bacteriophages. This media is 2 times richer than the YT media. This media was originally formulated as a nutritionally enriched growth medium for growth of recombinant strains of *Escherichia coli* and can also be used for propagation of M13 bacteriophage (1-3). It permits larger quantity of phage production without exhausting the host. Yeast extract and tryptone provide all the required amino acids, nucleotide precursors, vitamins and other metabolites and as a result the cells grow faster in this medium. Sodium chloride provides sodium ions for transport and osmotic balance.

# **Quality Control**

#### Appearance of Powder:

Light yellow coloured, homogeneous, free flowing powder.

#### Colour and Clarity:

Light yellow coloured, clear solution without any precipitate.

#### Cultural Response:

Cultural characteristics observed after an incubation at 35-37°C for 18 - 48 hours.

Organisms (ATCC)GrowthEscherichia coli ATCC 23724good-luxuriantEscherichia coli ATCC 25922good-luxuriantEscherichia coli MTCC 1652good-luxuriant

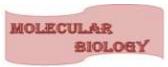
# Storage and Shelf Life

Store below 30°C and the prepared medium at 2 - 8°C. Use before expiry date on the label.

## References

- 1. Difco manual 11th ed., Sparks, MD (1998), 22-23
- 2. Assubel, F.M., R. Brent, R.E. Kingston, D.D. Moore, J.G. Seidman, J.A. Smith and K. Struhl, Current protocols in molecular biology, vol. 1, Current Protocols, New York, (1994)
- 3. Davis, L.G., M.D. Dibner and J.F. Battey, Basic methods in molecular biology, Elsevier, new York, (1986).

# **Disclaimer:**



### Molecular Biology Growth Media

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