

## TM 2427 – 4 XYT GROWTH MEDIUM

### INTENDED USE

Optimized formulation for the growth and maintenance of M13 phage or other filamentous ss DNA bacteriophages.

### PRODUCT SUMMARY AND EXPLANATION

4 XYT Growth Medium is an optimized formulation for the growth and maintenance of M13 phage or other filamentous ss DNA bacteriophages. This media is 4 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. It permits larger quantity of phage production without exhausting the host.

### COMPOSITION

Ingredients	Gms / Ltr
Tryptone	32.000
Yeast extract	20.000
Sodium chloride	5.000

### PRINCIPLE

The medium consists of Yeast extract and Tryptone which 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.

### INSTRUCTION FOR USE

- Dissolve 57.0 grams in 1000 ml purified/distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Mix well and dispense as desired.

### QUALITY CONTROL SPECIFICATIONS

- Appearance of Powder** : Cream to yellow coloured, homogeneous, free flowing powder.  
**Appearance of prepared medium** : Light yellow to yellow coloured, clear solution without any precipitate.  
**pH (at 25°C)** : 7.0 ± 0.2

### INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	Strain	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
<i>Escherichia coli</i>	25922 ATCC	50-100	Good- luxuriant	35-37°C	18-48 Hours



<i>Escherichia coli</i>	23724 ATCC	50-100	Good- luxuriant	35-37°C	18-48 Hours
<i>Escherichia coli</i> <i>DH5alpha</i>	1652 MTCC	50-100	Good- luxuriant	35-37°C	18-48 Hours

**PACKAGING:**

In pack size of 500 gm bottles.

**STORAGE**

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.













**Product Deterioration:** Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

**DISPOSAL**

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

**REFERENCES**

1. Difco manual 11 th 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).

 GMP Good Manufacturing Practices Certified	 IVD For In Vitro Diagnostic Use	 QTY. Quantity	 LOT/ B. NO. Lot / Batch Number	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 EC REP Authorized Representative <small>MedNet GmbH Barkstrasse 10 48163 Moenster, Germany</small>	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

**NOTE:** Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

**\*For Lab Use Only**  
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