CM 20,004 – 4 XYT GROWTH MEDIUM

INTENDED USE

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

PRODUCT SUMMARYAND EXPLANATION

4XYTGrowth Medium is anoptimized formulation for the growth and maintenance of M13 phage or other filamentous ssDNA 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 57.0gramsin 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

Culturalcharacteristics observed after incubation.

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

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

PACKAGING:

Inpacksizeof500 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.

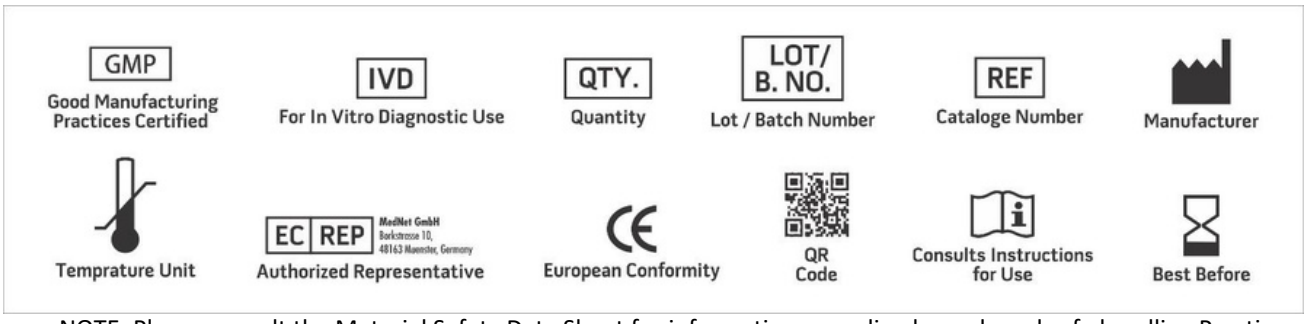
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

1. Difcomanual 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).



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

*For LabUse Only