

## TM 621 - YT BROTH (2X YT BROTH)

### INTENDED USE

For cultivation of recombinant strains of *Escherichia coli*.

### PRODUCT SUMMARY AND EXPLANATION

YT Broth is recommended for use in the cultivation of recombinant strains of *Escherichia coli*. It is also used in culture of *E. coli* strains for propagation of M 13 bacteriophages.

### COMPOSITION

Ingredients	Gms / Ltr
Casein enzymic hydrolysate	16.000
Yeast extract	10.000
Sodium chloride	5.000

### PRINCIPLE

These media contain casein enzymic hydrolysate and yeast extract, which supply nitrogenous compounds, vitamin B complex and other essential nutrients and co-factors necessary for the luxuriant growth of recombinant *E. coli* and allows the bacteria to recover from the stress of transformation and grow well. Sodium chloride helps in maintaining isotonic conditions in the medium.

### INSTRUCTION FOR USE

- Dissolve 31.00 grams in 1000 ml distilled water.
- Heat if necessary to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

### QUALITY CONTROL SPECIFICATIONS

**Appearance of Powder** : Light yellow to beige homogeneous free flowing powder.  
**Appearance of prepared medium** : Light amber coloured clear solution in tubes.  
**pH (at 25°C)** : 7.0±0.2

### INTERPRETATION

Cultural characteristics observed after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
<i>Escherichia coli</i>	23724	50-100	Good-luxuriant	35-37°C	18-24 Hours
<i>Escherichia coli</i>	53868	50-100	Good-luxuriant	35-37°C	18- 24 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.

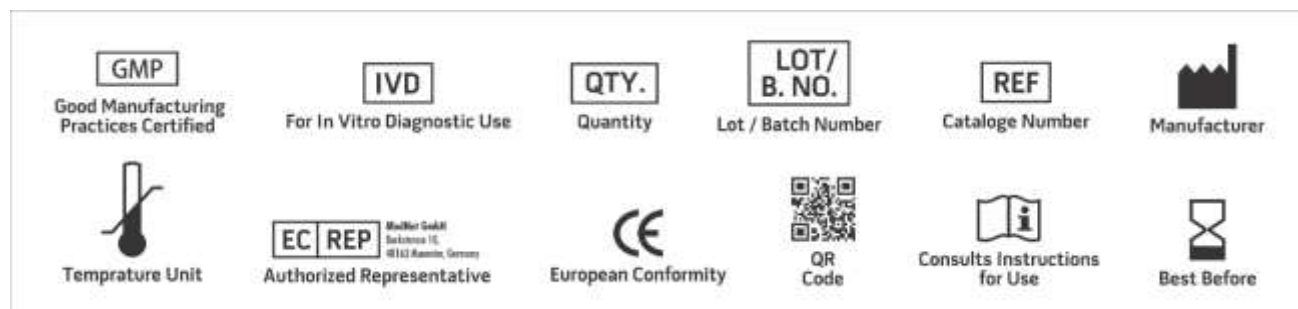
**Product Deterioration:** Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

### DISPOSAL

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

### REFERENCES

1. Miller H., 1987, Meth. Enzymol; 152, 145.
2. Ausubel F. M., Brent R., Kingston R. E., Moore B. D., Seidman J. G., Smith J. A. and Strohl K., 1994, Current Protocols in Molecular Biology, Vol. I, Current Protocols, New York, N.Y.
3. Davis L. G., Dibner M. D., Battey J. F., 1986, Basic Methods in Molecular Biology, Elsevier, New York, N.Y.
4. Sambrook J., Fritsch E. E. and Maniatis T., 1989, Molecular Cloning: A Laboratory Manual, 2nd Ed., Cold Spring Harbor Laboratory, Cold Spring Harbor, N.Y.



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

**\*For Lab Use Only**  
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