

Technical Information

YT Broth

Product Code: DM 2251

Application: - YT Broth is used for the cultivation of recombinant strains of *Escherichia coli*.

Composition**

Ingredients	Gms / Litre
Casein enzymic hydrolysate	16.000
Yeast extract	10.000
Sodium chloride	5.000
Final pH (at 25°C)	7.0±0.2

**Formula adjusted, standardized to suit performance parameters

YT Broth is recommended for the cultivation of recombinant strains of *Escherichia coli*. It is also used propagation of M 13 bacteriophages^(1, 2, 4,).

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.

Methodology

Suspend 31.0 grams of powder media in 1000 ml distilled water. Shake well & heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and dispense as desired.

Quality Control

Physical Appearance

Light yellow to beige homogeneous free flowing powder

Colour and Clarity of prepared medium

Light amber coloured clear solution in tubes.

Reaction

Reaction of 3.1% w/v aqueous solution at 25°C. pH : 7.0±0.2

pH range 6.80-7.20

Cultural Response

DM 2251: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth
<i>Escherichia coli</i> ATCC 23724	50-100	Good-Luxuriant
<i>Escherichia coli</i> ATCC53868	50-100	Good-Luxuriant



Dehydrated Culture Media
Bases / Media Supplements

Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.

Prepared Media: 2-8⁰ in sealable plastic bags for 2-5 days.

Further Reading

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.

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