# NZCYM Broth



Medium used for the cultivation of recombinant strains of *Escherichia coli*.

#### • CONTENTS (Liter)

Tryptone	10.0 g
Yeast Extract	5.0 g
Sodium Chloride	5.0 g
Casamino Acids	1.0 g
Magnesium Sulfate	0.98 g
Final pH = $7.0 \pm 0.2$ at $25^{\circ}$ C.	-

#### PROCEDURE

Suspend 22.0 G of powder in 1 L of distilled or deionized water. Heat to boiling until completely dissolved. Sterilize by autoclave at 121°C for 15 minutes. Cool to 45-50°C in water bath. Mix well. Dispense in tubes. If necessary, dispense the medium before autoclave.

#### INTERPRETATION

NZCYM Broth is a medium used for the cultivation of recombinant strains of *Escherichia coli*. Peptones provide nitrogen, carbon, vitamins and minerals for growth of microorganisms. Sodium chloride maintains the osmotic balance. Magnesium sulfate provides magnesium ions that are required in a variety of enzymatic reactions, including DNA replication.

#### TECHNIC

Inoculate the specimen with stab using a sterile needle to the medium. Shake gently for spreading microorganism. Incubate at 35  $\pm$  2 °C for 18 - 24 hours. Refer appropriate references for recommended test procedure.

#### • QUALITY CONTROL FOR USE

<u>Dehydrated medium</u> Appearance: free-flowing, homogeneous. Color: light beige. <u>Prepared medium</u> Appearance: slightly opalescent. Color: light amber. Incubation conditions:  $35 \pm 2 \degree C / 18 - 24$  hours

Microorganism	ATCC	Inoculum CFU	Growth
Escherichia coli	23724	50-100	good

# • STORE

The powder is very hygroscopic. Store the powder at room temperature, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident. Store prepared medium at 2-8°C.

## • REFERENCES

- 1. Blattner, Williams, Blechl, Denniston-Thompson, Faber, Furlong, Grunwald, Kiefer, Moore, Schumm, Sheldon and Smithies. 1977. Science 196:161.
- 2. Ausubel, Brent, Kingston, Moore, Seidman, Smith and Struhl(ed.). 1994. Current protocols in molecular biology, vol. 1. Current Protocols, New York, N.Y.

#### • PACKAGE

Cat. No : MB-N1215 NZCYM Broth

500 G

### MICROBIAL CULTURE IMAGES



None

*Escherichia coli* ATCC 25922 (100CFU)

Incubation conditions :  $36\pm1$  °C, 18h



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