

PRODUCT INFORMATION

A Medium Broth (J907)



A Medium Broth from AMRESCO is used for the cultivation and propagation of *Escherichia coli*.

Background:

A Medium Broth is a minimal medium, on which bacteria can grow rapidly if it contains a carbon compound such as glucose, which serves as both a carbon source and an energy source. Salts are also present to supply nitrogen, phosphorus, and trace metals the *E. coli* would need during its growth cycle¹. A Medium Broth requires that 10 mls of a 20% solution of glycerol and 1 ml of 1M MgSO₄ be added after autoclaving. The magnesium sulfate supplies the necessary magnesium ions that are required for DNA replication.

Formula: (Per Liter)

Ammonium Sulfate = 1.0g
Potassium Phosphate, Dibasic = 10.5g
Potassium Phosphate, Monobasic = 4.5g
Citric Acid Trisodium, Dihydrate = 0.5g
Final pH 8.0 ± 0.5 at 25°C

Additional supplements to be added to the broth after autoclaving:

10 mls of a 20% solution of glycerol
1 ml of a 1M MgSO₄ solution

The above solutions should be sterilized separately by filtration prior to addition to the broth.

Storage:

Dehydrated media should be stored in a dry area at 18-26°C.
Prepared media should be stored at 2-8°C.

Method of Preparation:

1. Suspend 16.5 grams of A Medium Broth powder in 1 L of purified water. Adjust pH as necessary.
2. Allow the powder to dissolve. Heat and stir gently if required.
3. Autoclave at 121°C for 15 minutes.
4. Allow the solution to cool to 50°C or below before adding antibiotics or additional nutritional supplements.

Quality Control:

All powders will have a white, free-flowing homogenous appearance.
All solutions will have a clear, haze free appearance.

Ordering Information:

Product	Code	Size
A Medium Broth	J907	100g 500g

References:

1. Ausubel, F. M., R. Brent, R. E. Kingston, D. D. Moore, J. G. Seidman, J. A. Smith, K. Struhl (ed.). 1994. Current Protocols in Molecular Biology. Vol. 1. Current Protocols. New York, N. Y.

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