



NZ Amine A Broth

M1306

NZ Amine A Broth is used for the cultivation of *Escherichia coli*.

Composition**

Ingredients	Gms / Litre
Casein acid hydrolysate	1.000
NZ Amine A	10.000
Sodium chloride	5.000
Magnesium chloride	2.000

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 18 grams in 1000 ml distilled water. 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.

Principle And Interpretation

Escherichia coli is commonly used as a model organism for bacteria in general. Because of its ubiquity, *E. coli* is frequently studied in microbiology and is the current “workhorse” in molecular biology. *E. coli* plays an important role in modern biological engineering. Researchers can alter the bacteria to serve as “factories” to synthesize DNA and/or proteins, which can then be produced in large quantities using the industrial fermentation processes. One of the first useful applications of recombinant DNA technology was the manipulation of *E. coli* to produce human insulin for patients with diabetes. *E. coli* grow rapidly in NZ Amine A Broth (1) as it provides necessary metabolites for the cell, which would otherwise have to be synthesized by the cell (2).

Casein acid hydrolysate and NZ Amine A provide necessary nutrients and cofactors required for the growth of *E. coli*. Sodium chloride helps to maintain the osmotic balance whereas magnesium ions serves as immediate activator required for a number of enzymatic reactions, including DNA replication of the cell.

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Colour and Clarity of Prepared medium

Light to medium amber coloured clear to slightly opalescent solution

Cultural Response

M1306: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth
Cultural Response		
<i>Escherichia coli</i> ATCC 23724	50-100	good-luxuriant
<i>Escherichia coli</i> ATCC 53868	50-100	good-luxuriant

Storage and Shelf Life

Store below 30°C in tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label.

Reference

1. Atlas R. M., 2004, Handbook of Microbiological Media, Lawrence C. Parks (Ed.), 3rd Edition, CRC Press, Boca Raton.
2. Ausubel F. M. et al, 1994, Current Protocols in Molecular Biology, Vol. 1, Current Protocols, New York, NY.

Disclaimer :

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal or therapeutic use but for laboratory, diagnostic, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.