

Technical Information

Minimum Salt w/ Casein Acid Hydrolysate

Product Code: DM 2254

Application: - Minimum Salt w/ Casein Acid Hydrolysate is used for the cultivation of *Escherichia coli* strains used for genetic and molecular studies.

Composition**

Ingredients	Gms / Litre
Casein acid hydrolysate	4.000
Disodium hydrogen phosphate	6.800
Monopotassium hydrogen phosphate	3.000
Sodium chloride	0.500
Ammonium chloride	1.000
Dextrose	4.000
Magnesium sulphate	0.240
Final pH (at 25°C)	6.8±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Minimum Salt with Casein Acid Hydrolysate medium is based on the formula originally suggested by Davis et al ⁽¹⁾. The medium with the addition of casein acid hydrolysate is used for cultivating *Escherichia coli* strains used for genetic and molecular studies.

Casein acid hydrolysate supplies many amino acids (except tryptophan) to *E. coli*. Ammonium chloride is added as a nitrogen source. Dextrose serves as the carbon and energy source while the two phosphates buffer the medium against pH changes due to the utilization of carbohydrate. Magnesium ions are required in a variety of enzymatic reactions including DNA replication ⁽²⁾.

Methodology

Suspend 19.54 grams of powder media in 1000 ml distilled water. Shake well heat 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

Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Light amber coloured clear to slightly opalescent solution

Reaction

Reaction of 1.95% w/v aqueous solutions at 25°C. pH : 6.8±0.2

pH range 6.60-7.00

Cultural Response/Characteristics

DM2254: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth
<i>Escherichia coli</i> strain B ATCC 23226	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. Collee J. G., Fraser A. G., Marmion B. P., Simmons A., (Eds.), Mackie and McCartney, Practical Medical Microbiology, 1996, 14 th Edition, Churchill Livingstone.
2. Balows A., Truper H. G., Dworkin M., Harder W., Schleifer K. H., (Ed s.), The Prokaryotes, 2nd Ed., Springer-Verlag.
3. Chapman G. H., 1944, J. Bacteriol., 48, 113.
4. Chapman G. H., 1946, Am. J. Digestive Diseases, 13: 105.
5. Chapman G. H., 1947, Trans. N.Y., Acad. Sci. (Series 2), 1045.
6. Synder M. L. and Lichstein L. C., 1940, J. Infect. Dis., 67: 113.
7. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. 1, Williams and Wilkins, Baltimore.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conform solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate
- **Central Drug House 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 diagnostic or therapeutic use but for laboratory, research or further manufacturing of diagnostic reagents extra.
- 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.
- Do not use the products if it fails to meet specificatons for identity and performens parameters.

