

Technical Information

Nutrient Agars pH 7.0

Product Code: DM 1561A

Application: - Nutrient Agars pH 7.0 is used for the cultivation of *Salmonella* species.

Composition**

Ingredients	Gms / Litre
Peptic digest of animal tissue	5.000
Meat extract	3.000
Agar	15.000
Final pH (at 25°C)	7.0±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Nutrient Agar is a basic culture medium used for maintenance or to check purity of bacteria prior to biochemical or serological tests from water ⁽¹⁾ and Dairy ⁽²⁾. Many bacteria have the optimum pH growth range of 6.6 to 7.0. This medium may be used as slants or plates for routine work with non-fastidious organisms. Wetmore and Gochenour ⁽³⁾ maintained cultures of *Malleomyces* and *Pseudomonas* on Nutrient Agar to which glycerol was added. Greenberg and Cooper ⁽⁴⁾ used this medium for cultivation of Staphylococci for the preparation of vaccines and antigens.

Meat extract contains vitamins, organic nitrogen compounds, salts and little carbohydrates ⁽⁵⁾. Peptic digest of animal tissue provide amino acids and long chain peptides for the organisms.

Methodology

Suspend 23 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. If desired, the medium can be enriched with 5 - 10% v/v sterile defibrinated blood.

Quality Control

Physical Appearance

Cream to yellow homogeneous free flowing powder

Gelling

Firm, comparable with 1.5% Agar gel

Colour and Clarity of prepared medium

Yellow coloured clear to slightly opalescent gel forms in Petri plates

Reaction

Reaction of 2.3% w/v aqueous solution at 25°C. pH : 7.0±0.2

pH Range

6.80-7.20

Cultural Response/Characteristics

DM 1561A: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours .

Organism	Inoculum (CFU)	Growth	Recovery
<i>Enterococcus faecalis</i> ATCC 29212	50-100	luxuriant	>=70%
<i>Escherichia coli</i> ATCC 25922	50-100	luxuriant	>=70%
<i>Escherichia coli</i> ATCC 13076	50-100	luxuriant	>=70%
<i>Salmonella Enteritidis</i> ATCC 6539	50-100	luxuriant	>=70%



Dehydrated Culture Media
Bases / Media Supplements

<i>Salmonella Typhimurium</i> ATCC 14028	50-100	luxuriant	>=70%
<i>Shigella flexneri</i> ATCC 12022	50-100	luxuriant	>=70%
<i>Staphylococcus aureus</i> ATCC 25923	50-100	luxuriant	>=70%

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. Greenberg A. E., Trussell R. R. and Clesceri L. S. (Eds.), 1985, Standard Methods for the Examination of Water and Waste water, 16th ed., APHA, Washington D.C.
2. Standard Methods for the Examination of Dairy Products, 1978, 14th ed., APHA, Washington D.C.
3. Wetmore and Gochenour, 1956, J. Bact., 72:79.
4. Greenberg and Cooper, 1960, Can. Med. Assn. J., 83:143.
5. Pelczar, Chan and Kreig, 1986, Microbiology, 5th ed., McGraw-Hill Book Company, New York.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conforms 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 specifications for identity and performance parameters.

