



Standard Nutrient Agar, Modified

Intended use:

Recommended for detection of inhibitors in microbiological examination of meat.

Composition**	C / I ·
Ingredients	Gms / Litre
HM peptone #	3.450
Casitose 🔺	3.450
Sodium chloride	5.100
Agar	13.000
Final pH (at 25°C)	7.5±0.2
**Formula adjusted standardized to suit performan	noo paramatara

**Formula adjusted, standardized to suit performance parameters

▲ Equivalent to casein peptone

Equivalent to Meat Peptone

Directions

Suspend 25 grams in 1000 ml purified / distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C. Mix well and pour into sterile petri plates.

Principle And Interpretation

Fastidious organisms are organisms which require preformed organic molecules like vitamins, amino acids, nucleic acids, carbohydrates. In general bacterial pathogens need more preformed organic molecules than do non-pathogens. Media which are highly nutritional are generally used to enrich less fastidious organism so as to isolate them from test samples.

Standard Nutrient Agar, Modified can be used in the detection of inhibitors during the bacteriological examination of meat (3). This medium can also be modified with various additives (5).

HM peptone and Casitose in the medium provides the nitrogenous and carbonaceous compounds, long chain amino acids, vitamins and other essential nutrients. Sodium chloride maintains the osmotic equilibrium of the medium.

Type of specimen

Food samples

Specimen Collection and Handling:

For food samples, follow appropriate techniques for sample collection and processing as per guidelines (4). After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

1. Some organism may show poor growth due to nutritional variation.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance Cream to yellow homogeneous free flowing powder M2022

Gelling

Firm, comparable with 1.3% Agar gel

Colour and Clarity of prepared medium

Dark amber to amber coloured clear to slightly opalescent gel forms in Petri plates

Reaction

Reaction of 2.5% w/v aqueous solution at 25°C. pH : 7.5±0.2

pН

7.30-7.70

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 18-48 hours.

Organism	Inoculum (CFU)	Growth Recovery
Escherichia coli ATCC 11775 (00090*)	50-100	good-luxuriant >=70%
Shigella flexneri ATCC 29903(00125*)	50-100	good-luxuriant >=70%
Salmonella Typhimurium ATCC 13311 (00121*)	50-100	good-luxuriant >=70%
Staphylococcus aureus subsp. aureus ATCC 25923 (00034*)	50-100	good-luxuriant >=70%
Pseudomonas aeruginosa ATCC 27853(00025*)	50-100	good-luxuriant >=70%
Streptococcus pyogenes ATCC 19615	50-100	good-luxuriant >=70%

Key: (*) Corresponding WDCM numbers.

Storage and Shelf Life

Store between 10-30°C in a tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to prevent lump formation due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use. Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (1,2).

Reference

1. Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.

2. Jorgensen, J.H., Pfaller , M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.

- 3. Levetzow, R: Untersuchung auf Hemmstoffe im Rahmen der bakteriologischen Fleischuntersuchung, Bundesgesundheitsblatt, 1971.14; 211-213.
- 4. Salfinger Y., and Tortorello M.L. Fifth (Ed.), 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.

5. Zavanella, M., Aurelia, P., a. Ferrini, A.M: Improved microbiological method for the detection of antimicrobial residues in meat.- 1986. Arch Lebensmittelhyg.,37:118-120.

Revision : 01/ 2019

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.

HiMedia Laboratories Pvt. Ltd. Reg.office : 23, Vadhani Ind.Est., LBS Marg, Mumbai-400086, India. Customer care No.: 022-6116 9797 Corporate office : A-516,Swastik Disha Business Park,Via Vadhani Ind. Est., LBS Marg, Mumbai-400086, India. Customer care No.: 022-6147 1919 Email: techhelp@himedialabs.com Website: www.himedialabs.com