Modified Proteose Agar

M1606

Intended Use:

Recommended with added enrichment for isolation and cultivation of *Neisseria* and *Haemophilus* species.

Composition**

Ingredients	g / L
Proteose peptone	20.000
Dextrose (Glucose)	0.500
Sodium chloride	5.000
Disodium hydrogen phosphate	5.000
Agar	15.000
Final pH (at 25°C)	7.3±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 45.5 grams in 490 ml purified/distilled water. Mix thoroughly. Heat to boiling with frequent agitation to dissolve the medium. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C. Aseptically add 500 ml sterile 2% solution of FO Growth Supplement (FD022) and 10 ml of Vitamino Growth Supplement (FD025). Mix thoroughly and pour into sterile Petri plates.

Principle And Interpretation

Most *Neisseria* and *Haemophilus* strains are nutritionally fastidious and have complex growth requirements. All *Haemophilus* species require either exogenous hemin (X-Factor), NAD (V- Factor) or both (1).

Modified Protease Agar is generally used for the isolation of *Neisseria*. With added haemoglobin and Vitamino Growth Supplement (FD025) (2,3), the medium is used for the isolation of gonococci and *Haemophilus*.

Proteose peptone provides nitrogen, vitamins and amino acids. Dextrose is a carbon source. Sodium chloride maintains the osmotic balance in the medium, while disodium phosphate buffers the medium. Modified Proteose Agar is intended for use with supplementation by 2% Haemoglobin and Vitamino Growth Supplement (FD025) which improves the growth rate of *Neisseria* and *Haemophilus* species. Haemoglobin provides X factor (hemin) required for growth of *Haemophilus* and enhances growth of *Neisseria*. Vitamino Growth supplement serves as an additional source of glutamine and carboxylase. Refer appropriate references for standard procedures (1,4,5).

Type of specimen

Clinical samples - Sputum and Vaginal secretions

Specimen Collection and Handling

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (6,7).
After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions

In Vitro diagnostic Use only. For professional use only. 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 clinical specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

1. Individual organisms differ in their growth requirement and may show variable growth patterns on the medium.
2. Each lot of the medium has been tested for the organisms specified on the COA. It is recommended to users to validate the medium for any specific microorganism other than mentioned in the COA based on the user's unique requirement.

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

Gelling

Firm, comparable with 1.5% Agar gel

Colour and Clarity of prepared medium

Basal medium : Light to medium amber coloured opalescent gel with slight flocculent precipitate. After addition of haemoglobin : Chocolate brown coloured opaque gel forms in Petri plates

Reaction

Reaction of 4.55% w/v aqueous solution at 25°C. pH : 7.3±0.2

pH

7.10-7.50

Cultural Response

Cultural characteristics observed with added 2% haemoglobin solution (FD022),Yeast autolysate Supplement (FD027) or Vitamino Growth Supplement(FD025), after an incubation at 35-37°C for 40-48 hours.

Organism	Inoculum (CFU)	Growth	Recovery
Neisseria gonorrhoeae ATCC 43070	50-100	good	50-70%
Neisseria meningitidis ATCC 13102	50-100	good	50-70%
Neisseria sicca ATCC 9913	50-100	good	50-70%
Haemophilus influenzae ATCC 10211	50-100	good	50-70%

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 (6,7).

Reference

1. Murray P. R., Baron J. H., Pfaller M. A., Jorgensen J. H. and Yolken R. H., (Eds.), 2003, Manual of Clinical Microbiology, 8th Ed., American Society for Microbiology, Washington, D.C.

2. Lankford C. E., Scott V., Cox M. F. and Cooke W. R., 1943, J. Bacteriol., 45:321.

3. Lankford C. E. and Snell E. E., 1943, J. Bacteriol., 45:410.

4. Forbes B. A., Sahm A. S., and Weissfeld D. F., 1998, Bailey & Scotts Diagnostic Microbiology, 10th Ed. Mosby, Inc., St. Louis, Mo.

5. Isenberg, (Ed.), 1992, Clinical Microbiology Procedures Handbook, Vol.1, American Society for Microbiology, Washington, D.C.

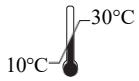
6. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.

7. 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.

Revision : 03/2024

HiMedia Laboratories Pvt. Limited,
Plot No.C-40, Road No.21Y,
MIDC, Wagle Industrial Area,
Thane (W) -400604, MS, India

IVD ***In vitro*** **diagnostic medical device**



Storage temperature

EC REP

CEpartner4U, Esdoornlaan 13,
3951DB Maarn, NL
www.cepartner4u.eu

CE Marking

Do not use if package is damaged

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.