

Chocolate HiVeg[®] Agar Base

MV103

Intended use

With added supplements it is recommended for isolation of *Neisseria gonorrhoeae* from chronic and acute cases of gonococcal infections.

Composition**

Ingredients	g / L
HiVeg [®] peptone No. 3	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 495 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. Aseptically add equal amount (495 ml) of sterile FO Growth Supplement (FD022). Also add the contents of one vial of Yeast Autolysate Supplement (FD027) or Vitamino Growth Supplement (FD025) reconstituted as directed. Mix well and pour into sterile Petri plates. When single strength medium is desired, suspend 45.5 grams in 1000 ml distilled water.

Principle And Interpretation

Neisseria gonorrhoeae is a gram-negative bacteria and the causative agent of gonorrhoea, however it is also occasionally found in the throat. The cultivation medium for gonococci should ideally be a rich nutrients base with blood, either partially lysed or completely lysed. The diagnosis and control of gonorrhoea have been greatly facilitated by improved laboratory methods for detecting, isolating and studying *N. gonorrhoeae*.

Chocolate HiVeg[®] Agar Base, with the addition of supplements, gives excellent growth of the gonococcus without overgrowth by contaminating organisms. G.C. Agar (M434) can also be used in place of Chocolate Agar Base, which gives slightly better results than Chocolate Agar (1). The diagnosis and control of gonorrhoea have been greatly facilitated by improved laboratory methods for detecting, isolating and studying *N. gonorrhoea*. Chocolate HiVeg[®] Agar Base is same as Chocolate Agar Base except that the animal based peptones are completely replaced with vegetable peptones to avoid the BSE/TSE risks associated with the animal peptones.

Interest in the cultural procedure for the diagnosis of gonococcal infection was stimulated by Ruys and Jens (2), McLeod and co-workers (3), Thompson (4), Leahy and Carpenter (5), Carpenter, Leahy and Wilson (6) and Carpenter (7), who clearly demonstrated the superiority of this method over the microscopic technique. Chocolate HiVeg[®] Agar Base with addition of supplement not only supports the growth of the gonococcus in pure culture but also permits its development from the mixed flora encountered in chronic gonococcal infections. Carpenter (8) reported that this medium and Haemoglobin (FD022) is useful for cultural detection of the gonococcus.

Type of specimen

Clinical samples

Specimen Collection and Handling:

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (9,10). 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. Further biochemical tests must be carried out for confirmation.

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 amber coloured clear to slightly opalescent gel. After addition of haemoglobin : Chocolate brown coloured opaque gel forms in Petri plates.

Reaction

Reaction of 4.5% w/v aqueous solution at 25°C. pH : 7.3±0.2

pH

7.10-7.50

Cultural Response

Cultural characteristics observed with added FO Growth Supplement (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
<i>Neisseria gonorrhoeae</i> ATCC 19424	50-100	luxuriant	≥70%
<i>Neisseria meningitidis</i> ATCC 13090	50-100	luxuriant	≥70%
<i>Streptococcus pneumoniae</i> ATCC 6303	50-100	luxuriant	≥70%
<i>Streptococcus pyogenes</i> ATCC 19615	50-100	luxuriant	≥70%
<i>Haemophilus influenzae</i> ATCC 19418	50-100	luxuriant	≥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 sample must be decontaminated and disposed of in accordance with current laboratory techniques (9,10).

Reference

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2. McLeod J. W., Cootes J. C., Happold F. C., Priestely D. P., Wheatley B., 1934, J. Path. Bacteriol., 39:221.
3. Muench. Wochschr., 80:846:1933
4. J. Infectious Diseases, 61:129:1937
5. Am. J. Syphilis, 20:347:1936
6. Am. J. Syphilis, 22:55:1938
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8. Bull. Genitoinfectious diseases, Mass. State Health Dept., 2:1:1938.
9. Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.
10. 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.

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