

Technical Information

Chocolate Agar Base

Product Code: DM 1103

Application:- Chocolate agar Base is recommended for the isolation of *Neisseria gonorrhoeae* from chronic and acute cases of gonococcal infections.

Composition**

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

**Formula adjusted, standardized to suit performance parameters

Principle & 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 which is either partially or completely lysed. The improved laboratory methods for detecting, isolating and studying *N. gonorrhoeae* has paved away in early diagnosis & control of the infection in human population.

Chocolate Agar Base, with the addition of supplements, gives excellent growth of the gonococcus without overgrowth by contaminating organisms. G.C. Agar (DM1434) can also be used in place of Chocolate Agar Base, which gives slightly better results than Chocolate Agar⁽¹⁾.

Interest in the cultural procedure for the diagnosis of gonococcal infection was stimulated by Ruys and Jens⁽²⁾, followed by 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 Agar Base with addition of supplement supports the growth of the gonococcus in pure culture from the mixed flora encountered in chronic gonococcal infections. Carpenter⁽⁸⁾ reported that this medium and Haemoglobin (MS2012) is useful for cultural detection of the gonococcus.

Methodology

Suspend 45.5 grams of powder media in 495 ml distilled water. Shake well & heat 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 2% Haemoglobin solution (MS2022). Also add the contents or one vial of Yeast Autolysate Supplement (MS2027) or Vitamino Growth Supplement (MS25025) reconstituted as directed. Mix well before pouring. When single strength medium is desired, suspend 45.5 grams in 1000 ml distilled water.

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

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 range 7.10-7.50

Cultural Response/ characteristics

DM 1103: Cultural characteristics observed with added 2% haemoglobin solution (MS2022), Yeast autolysate Supplement (MS2027) or Vitamino Growth Supplement (MS2025), after an incubation at 35-37°C for 40-48 hours.

Organism	Inoculum (CFU)	Growth	Recovery
Neisseria gonorrhoeae ATCC 19424	50-100	luxuriant	≥70%
Neisseria meningitidis ATCC 13090	50-100	luxuriant	≥70%
Streptococcus pneumoniae ATCC 6303	≥10 ³	luxuriant	≥70%
Streptococcus pyogenes ATCC 19615	50-100	luxuriant	≥70%
Haemophilus influenzae ATCC 19418	≥10 ³	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 : 2-8° in sealable plastic bags for 2-5 days.

Further Reading

1. Carpenter C. M., Bucca M. A., Buck T. C., Casman E. P., Vhristensen C. W., Crowe E., Drew R., Hill J., Lankford L. E., Morton H. E., Peizer L. R., Shaw C. J., and Thayer J. D., 1949, Am. J. Syphil. Gonorrh. Venereal Diseases, 33:164
2. Muench. Wochschr., 80:846:1933
3. McLeod J. W., Cootes J. C., Happold F. C., Priestely D. P., Wheatley B., 1934, J. Path. Bacteriol., 39:221.
4. J. Infectious Diseases, 61:129:1937
5. Am. J. Syphilis, 20:347:1936
6. Am. J. Syphilis, 22:55:1938
7. Seventh Annual Year book (1936-37) P.133, suppl., Am. J. Pub. Health. 27: no.3 : 1937
8. Bull. Genitoinfectious diseases, Mass. State Health Dept., 2:1:1938.

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.