microgen
Ready Prepared Media

Technical Information

Chocolate Agar Plate w/ Bacitracin

Product Code: PM 6333

Application: Recommended for isolation of *Neisseria gonorrhoeae* from chronic and acute cases of gonococcal infections .

Composition**

Ingredients	Gms / Litre
Proteose peptone	20.000
Dextrose (Glucose)	0.500
Sodium chloride	5.000
Disodium hydrogen phosphate	5.000
Agar	15.000
MS2022	-
MS2027	-
MS2025	-
Bacitracin	-
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 gonorrhea, 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 gonorrhea have been greatly facilitated by improved laboratory methods for detecting, isolating and studying *N. gonorrhoeae*.

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 (4). The diagnosis and control of gonorrhea have been greatly facilitated by improved laboratory methods for detecting, isolating and studying *N. gonorrhoea* .

Interest in the cultural procedure for the diagnosis of gonococcal infection was stimulated by Ruys and Jens (9), Mcleod and co-workers (8), Thompson (7), Leahy and Carpenter (1), Carpenter, Leahy and Wilson (2) and Carpenter (10), who clearly demonstrated the superiority of this method over the microscopic technique. Chocolate 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 (3) reported that this medium and Haemoglobin (MS2022) is useful for cultural detection of the gonococcus.

Type of specimen

Clinical samples - Blood, vaginal samples.

Specimen Collection and Handling:

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (5,6).

After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

In Vitro diagnostic use. 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 strain of a microorganism may have unique growth requirements with respect to nutrients and physical conditions. Based on which the growth pattern of each varies on a medium and some even may display significant delay.
2. Some pathogenic fungi may produce infective spores which are easily dispersed in air, so examination should be carriedout in safety cabinet.
3. Each lot of the medium has been tested for the organisms specified on the COA. It is recommended to users to validatethe medium for any specific microorganism other than mentioned in the COA based on the user's unique requirement.
4. Further biochemical tests should be carried out for complete identification

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.

Methodology

Either streak, inoculate or surface spread the test inoculum (50-100 CFU) aseptically on the plate.

Quality Control

Appearance
Sterile Chocolate Agar with Bacitracin in 90mm disposable plate.
Colour
Chocolate brown coloured medium
Quantity of medium
25ml of medium in 90mm plate
Sterility Test
Passes release criteria
Reaction
7.10-7.50
Cultural Response
Cultural characteristics observed after an incubation at 35-37°C for 24 - 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	50-100	luxuriant	>=70%
Streptococcus pyogenes ATCC 19615	10^4	Inhibited	0%
Haemophilus influenzae ATCC 19418	50-100	luxuriant	>=70%

Storage and Shelf Life

- On receipt store between 2-8°C Use before expiry date on the label.
- 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 samplemust be decontaminated and disposed of in accordance with current laboratory techniques (5,6).

Further Reading

1. Am. J. Syphillis, 20:347:1936
2. Am. J. Syphillis, 22:55:1938
3. Bull. Genitoinfectious diseases, Mass. State Health Dept., 2:1:1938.
4. 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. Veneral Diseases, 33:164
5. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
6. 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.
7. J.Infectious Diseases, 61:129:1937
8. Muench. Wochschr., 80:846:1933
9. McLeod J. W., Cootes J. C., Happold F. C., Priestely D. P., Wheatley B., 1934, J. Path. Bacteriol., 39:221.
10. Seventh Annual Year book (1936-37) P.133, supple., Am. J. Pub.Health.27: no.3 : 1937

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conform 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
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